EUROPEAN CENTRAL BANK

OCCASIONAL PAPER SERIES
NO. 32 / JULY 2005

MANAGING FINANCIAL CRISES IN EMERGING MARKET ECONOMIES

EXPERIENCE WITH THE INVOLVEMENT OF PRIVATE SECTOR CREDITORS

by an International Relations Committee Task Force

EUROPEAN CENTRAL BANK

OCCASIONAL PAPER SERIES
NO. 32 / JULY 2005

MANAGING FINANCIAL CRISES IN EMERGING MARKET ECONOMIES

EXPERIENCE WITH THE INVOLVEMENT OF PRIVATE SECTOR CREDITORS

by an International Relations Committee Task Force *

In 2005 all ECB publications will feature a motif taken from the €50 banknote.

* *The opinions expressed in this paper are those of the authors listed on page 5 and do not necessarily reflect those of the European Central Bank or the national central banks the authors are affiliated with.*

Address
Kaiserstrasse 29
60311 Frankfurt am Main
Germany

Postal address
Postfach 16 03 19
60066 Frankfurt am Main
Germany

Telephone
+49 69 1344 0

Website
http://www.ecb.int

Fax
+49 69 1344 6000

Telex
411 144 ecb d

ISSN 1607-1484 (print)
ISSN 1725-6534 (online)

CONTENTS

PREFACE

Financial crises in emerging market economies are often accompanied by difficulties of the sovereign concerned to honour its contractual obligations to foreign creditors. The expectation of such payment difficulties can trigger disorderly actions if creditors rush to withdraw their investment from the crisis country of if the debtor is tempted to resort to unorthodox measures to prevent capital outflows. This can magnify the costs of the crisis and delay a timely restoration of normal market functioning. The official sector (mostly the IMF) may reduce the likelihood of such a disorderly outcome by extending financial assistance. But there are limits to its involvement, not least because the potential volume of IMF lending is small compared to the size of private capital flows to emerging market economies and because a large "bail out" by the official sector would lead to moral hazard. Countries would possibly not take necessary preventive action to avoid financial crises in the first place.

For both these reasons – limited official funds and moral hazard – private sector creditors to a crisis country need to share some of the financial burden and thereby actively get involved in the management of financial crises in emerging market economies. In practice this inevitably implies that private creditors incur some financial costs in the event of a crisis. The purpose of this report is to review the set of instruments that may promote such an involvement of private sector creditors. The key instruments in this regard are that private sector creditors forego some of their claims, lengthen maturities, renounce interest receipts for some periods or otherwise accept losses to alleviate the burden of the crisis country. Clearly, given the size of financial markets, it is nowadays accepted that a contribution of private sector creditors is generally needed to successfully manage financial crises.

The promotion of orderly crisis management has been central on the international community's agenda for several years. A number of steps have been taken to improve the framework for the involvement of the private sector, but the implementation of this framework still raises critical challenges, not least in terms of timely diagnosis of the actions needed by all stakeholders. To assess these challenges, this report provides a stock-taking of past experience and identifies areas of possible improvement to the framework for crisis resolution.

This report was prepared by a task force of the International Relations Committee (IRC), a Committee established by the European System of Central Banks (ESCB) to deal with international monetary and financial affairs. The task force was composed of staff members of several central banks of the ESCB. The report has been discussed by the International Relations Committee and the authors gratefully acknowledge substantive comments made by the Committee members on that occasion. In particular, they would like to thank Hervé Hannoun, Deputy Governor of the Banque de France and Chairman of the IRC, for his encouragement of the task force work and for his valuable guidance. In addition, the report has been discussed by the Sub-Committee on IMF and Related Issues of the Economic and Financial Committee[1], chaired by Lorenzo Bini Smaghi, and helpful comments from this Committee are acknowledged as well.[2]

1 The Economic and Financial Committee is a consultative committee that contributes to the preparation of the work of the ECOFIN Council.

2 The authors would also like to thank Christian Dyckner for valuable assistance in the finalisation of the paper.

AUTHORS AND PARTICIPATING CENTRAL BANKS:

European Central Bank	Christian Thimann Regine Wölfinger Thierry Bracke Rita Bessone Basto
Danmarks Nationalbank	Ole Hollensen
Deutsche Bundesbank	Stephan von Stenglin
Banco de España	Santiago Fernández de Lis
Banque de France	Pierre-François Weber
Banca d'Italia	Marco Committeri
De Nederlandsche Bank	Rolf Pauli
Österreichische Nationalbank	Christian Just
Suomen Pankki	Minna Nikitin
Bank of England	John Drage

INTRODUCTION

Over the last 10 years, a number of emerging market economies have suffered pronounced financial crises with far-reaching negative economic implications. These crises implied substantial losses in terms of wealth, output and jobs and were often accompanied by currency and banking crises. For example, the average cumulative output losses for Argentina (2001-02 crisis), Indonesia (1998) and Turkey (1999-2001) have been estimated in the range of 12-15% of GDP.

The actions of the country's private sector creditors are a crucial variable in the management of such crises. When there are signs that a crisis starts unfolding, external creditors may have an interest in withdrawing their funds as quickly as possible so as to minimise potential losses. However, if all creditors adopt such a "rush-to-the-exit" strategy, the economic and financial consequences may be magnified and the resulting loss in welfare may be detrimental to the country and its creditors alike. By contrast, if creditors are willing to maintain some exposure in the country, the crisis may be less disruptive, facilitating a quick return to normal market conditions, which is ultimately also in the interest of creditors.

Such considerations about the role of the private sector in crisis situations were largely absent in the international policy debate until the 1970s but have gained prominence since then due to the increasing amount of private capital flowing to developing and emerging market countries. In the debt crises of the 1980s, the focal point of the policy debate concerned the actions of commercial banks, as private lending to developing countries mainly took the form of bank loans at that time. In the second half of the 1990s, the policy debate took a new dimension as sovereigns tapped international financial markets increasingly through sovereign bond issues instead of bank loans. Hence, instead of bringing commercial banks around the table – for example through the London Club – it was now important to bring bondholders around the table, which was seen as particularly challenging given that bondholders are usually far higher in numbers (often several tens of thousands, compared to a few dozen international creditor banks in earlier crises) and also geographically more dispersed.

The term private sector involvement was coined in the late-1990s in the context of the discussions on bond restructurings and capital account crises. It refers, broadly speaking, to the contributions or efforts of private sector creditors to the crisis resolution process; specifically, it means that the private sector shares some of the costs of a financial crisis by incurring itself financial losses, such loss-bearing can be the result of a loss in principal (write-off of debt), a lengthening of the repayment schedule or the reduction in interest payments. In order to ensure an effective involvement of private sector creditors, the international community started to developed a broad roadmap for crisis resolution. At the Annual Meeting in September 2000, held in Prague, the IMF defined a broad framework for crisis resolution which acknowledges the need for voluntary approaches to overcome creditor coordination problems and, in more extreme cases, for "a broader spectrum of actions by private sector creditors, including comprehensive debt restructuring", recognising that "a temporary payments suspension or standstill may be unavoidable." Another important step was taken in late-2002, when the IMF strengthened the constraints on the volume of its own lending to crisis countries, thus strengthening the need for private sector contributions.

Efficient crisis resolution requires, however, not only a broad policy framework that provides an appropriate set of incentives. It also requires a set of operational instruments through which the involvement of the private sector can be organised and fostered. Through a number of recent crises, experience has been gained with some instruments, such as

exchanges of bond contracts and extensions of interbank credit lines. In more recent years work has concentrated on the more widespread introduction of clauses in bond contracts that allow for more orderly restructuring in the event of sovereign debt crises (collective action clauses). In addition, emerging market issuers and leading private creditor organisations agreed in November 2004 on a set of "Principles for Stable capital Flows and Fair Debt Restructuring in Emerging Markets", which promote, among other things, orderly debt restructuring negotiations and fair treatment of all affected creditors.

This report aims to deepen the understanding of past experience with the involvement of private sector creditors. First of all, the report recalls why such involvement is relevant in the overall framework for crisis management (Section 1). The report then takes a closer look at the specific instruments that have been used in past crises to promote private sector involvement (Section 2). Policy conclusions are presented at the end of the report (Section 3). The annexes provide a more thorough analysis of some of the issues at stake.

I THE GENERAL FRAMEWORK FOR THE INVOLVEMENT OF PRIVATE SECTOR CREDITORS

I.1 MOTIVATIONS, OBJECTIVES AND THE ROLE OF THE INTERNATIONAL COMMUNITY

The greater role of capital markets and the rapid growth of emerging market economies that have characterised the globalisation of the world economy have been accompanied by substantial private capital flows to emerging market economies. Barely reaching USD 10 billion in the early 1980's, private capital flows to main emerging markets have increased more than tenfold since then. The share of private flows in total capital flows increased from less than 40% in the 1980s to over 90% in the ten years ending in 2004. These developments are welcome, as they contribute to sustained growth in emerging markets and promote an efficient allocation of resources worldwide. However, they also leave the debtor countries vulnerable to the risk of rapid capital flows reversals triggered by a change of investor sentiment towards their economic policies or economic situation. One distinctive feature of such reversals of capital flows is that they have proved to be pro-cyclical because of self-fulfilling expectations by private investors: once problems are perceived by some creditors, leading to the withdrawal of their funds, this aggravates the situation in the country and reinforces the negative expectations of other creditors. The resulting massive reversal of capital flows can contribute to sovereign default, or exacerbate the consequences of a crisis.

Such capital flow reversals create external financing needs of the crisis country, which in some situations are too large to be addressed only through adjustment policies that aim at reducing domestic absorption relative to production. Financial programmes by the official sector, in particular IMF and World Bank financing, in some cases supplemented by bilateral support packages, may alleviate the external financing needs, but the amounts of official financing will typically be insufficient to cover the financing needs. In several recent crises, private sector creditors have therefore been asked to contribute to filling the external financing needs of crisis countries. The efforts by the private sector to fill the financing gap may take various forms. The private sector might modify the terms of existing credit as mentioned above, for example through a lengthening of the original maturities or a softening of payment terms, or it might commit to providing new credit.

Private sector involvement is, however, always challenging to achieve due to fundamental uncertainty regarding the debtor's ability to pay in a crisis situation, almost unavoidable differences in the assessment of the situation by individual creditors and creditor coordination problems. Creditor coordination problems arise when a creditor attempts to withdraw its investment, thus imposing a negative externality on other creditors as it reduces the total amount of the country's available resources to service external debt. This implies that, what is rational from the point of view of an individual creditor may not be rational from a global perspective given that all creditors may act in a similar fashion. The uncertainty concerns in the first place the value of creditors' claims in a country during a financial crisis. This uncertainty derives not only from other creditors' behaviour but also from the difficulty in assessing whether payment problems arise out of genuine inability or simple unwillingness on the part of the sovereign to repay its debt, in a context where sovereign debtor's assets are usually difficult to seize. Finally, the relative importance of the financial claims on the crisis country is likely to differ markedly among the various creditors, which is bound to imply differences in the approach towards their involvement in crisis resolution.

Due to all these challenges, private sector involvement usually does not arise spontaneously, even in situations where it is rational from a global welfare perspective.

Therefore, debtor countries, or even the international community at large, have in some past crises actively encouraged private sector creditors to step in. Such encouragement implies, of course, a delicate balancing act. Clearly, the official sector should support the sanctity of contracts and the protection of creditor rights. At the same time, the official sector may aim to ensure that all stakeholders bear the consequences of their actions (e.g. creditors accepting losses associated with risk taking), which is taken up in the subsequent section.

1.2 IMPORTANCE OF PRIVATE SECTOR CREDITORS AND THEIR INVOLVEMENT

From a general policy perspective, crisis management should be aimed at finding an appropriate balance between domestic adjustment, private financing and official financing. Excessive reliance in one of the three components is generally undesirable or even unfeasible. Three main considerations highlight the importance of involving the private sector in crisis management.

– First, private financial flows have become a predominant source of financing for emerging market economies. The amount of private net capital flows to main emerging market economies was close to zero in the mid-1980s, following the Latin American debt crisis, and picked up to more than USD 160 billion in 2004, despite a dip towards the end of the 1990s and early 2000s as a result of the succession of financial crises in several recipient countries. Given the growing weight of private sector creditors in emerging market financing, their involvement in crisis resolution is increasingly necessary, as otherwise unrealistically large domestic adjustment efforts and official financing would be required. The increasing importance of private financing implies that official financing, which is bound by resource constraints of international financial institutions, is typically insufficient to address the external financial problems of crisis countries.

– Second, empirical evidence suggests that exclusive reliance on the catalytic approach may not yield satisfactory results. As illustrated in Annex 1, exclusive reliance on official financing coupled with IMF adjustment programmes does not always generate a spontaneous resumption of private capital flows. Evidence in support of the catalytic approach appears to be sparse and limited to specific circumstances.[3] Nevertheless, the lack of empirical support for the catalytic approach should be interpreted with caution, as most authors point to several methodological shortcomings in measuring catalytic effects.[4]

– Third, excessive reliance on official financing may have undesirable effects on the incentives for debtor countries and private sector creditors. The availability of large official support packages, or the perception thereof, may influence the behaviour of the borrowers and lenders in much the same way as an insurance policy influences the behaviour of the insured: it reduces incentives to take preventive action. Such moral hazard can be limited by ensuring that the burden of financial crises is shared by all parties involved, including the private sector. The existence of moral

3 In a number of studies, some evidence of catalytic effect was found: (i) for countries with intermediate credit ratings and when programmes are associated with limited structural conditions, (ii) in countries facing a marked volatility in their external sector and for precautionary, large and ongoing programmes and (iii) for precautionary arrangements and the Poverty Reduction and Growth Facility (PRGF), particularly concerning foreign direct investment and depending on the appropriateness of the programme in terms of size, transparency and conditionality involved. Other studies found no catalytic effect, and some papers even concluded that IMF programmes may promote capital outflows.

4 The various methodological approaches developed to test the catalytic effect of IMF programmes (statistical analyses of capital flows and spreads, and case studies) have faced similar shortcomings among which the following stand out in particular: (i) poor quality of existing data, (ii) problems in defining a valid counterfactual, (iii) sample selection bias, (iv) weak or non-existent dynamic specification.

hazard on the creditor side has been tested in empirical literature, but the evidence remains somewhat inconclusive[5] (see Table 1 for a short survey of relevant literature). Several studies find that creditor moral hazard decreased significantly as a result of the Russian default in August 1998, suggesting that moral hazard had been at play beforehand. However, the research on moral hazard has some limitations, as investor's perceptions can be influenced by other factors and the conditions under which the effect of official support could be isolated are not easily available. In addition, the literature is confronted with similar methodological difficulties as in the case of the catalytic approach and should therefore be interpreted with caution.[6] Nevertheless, despite these methodological difficulties, the potential negative impact of consistently large official financing packages on incentive structures for private investors should not be underestimated.

1.3 POLICY FRAMEWORK FOR ORDERLY CRISIS RESOLUTION

The promotion of an orderly resolution process in crisis situations has been an important topic on the international community's agenda for several years. To achieve more orderly crisis resolution, the international community has developed a set of general policy principles that also refer to the involvement of private sector creditors among which two are standing out:

– Prague framework for crisis resolution: An important step was taken at the Annual Meetings of the IMF and World Bank in Prague (September 2000), where the International Monetary and Financial Committee identified an approach based on a distinction between three crisis situations: (i) cases where catalytic effects are achieved, (ii) cases where voluntary but encouraged approaches are needed to secure private financing and (iii) cases where debt restructuring or payment suspension is warranted (IMF, 2000a).[7] The framework is thus based on a general understanding that, depending on the case at hand, crises can be resolved either through purely catalytic financing (first case) or through explicit actions aimed at fostering private sector involvement in a narrow sense (second and third cases).

– Exceptional access framework: Another important step was taken in 2002/03, when the IMF established specific criteria and procedures for access to IMF financing above normal access limits. By setting clear limits for the availability of official financing, this exceptional access framework is aimed at reducing moral hazard problems and underscores the importance of private sector contributions to crisis resolution.

However, developments since 2000 have illustrated that the implementation of these frameworks raises critical challenges, not least in terms of timely diagnosis and discipline among all stakeholders. First, compliance with the new exceptional access framework has yet to be demonstrated. In the three cases of exceptional access since the establishment of the framework (Argentina in September 2003, Brazil in November 2003 and Turkey in May

5 Creditor moral hazard is usually tested in the literature by using asset prices as a source of information about investor's perceptions. There is hardly any empirical literature about debtor moral hazard.

6 The similarities in terms of methodological difficulties are not surprising. After all, both types of literature assess the impact of IMF programmes on the behaviour of private investors. The key difference is that the catalytic approach refers to *ex-post* positive effects on capital flows, whereas moral hazard refers to *ex-ante* negative effects on debtor and private creditor discipline. Moreover, the empirical analysis of the catalytic effect focuses on the effect of a large number of IMF lending decisions on capital flows towards individual countries, whereas the analysis of moral hazard focuses on the effect of landmark lending decisions by the IMF on investor behaviour toward emerging markets in general.

7 The need for PSI was also recognised by the private sector: The Institute of International Finance (2001) published a "Broad framework of principles for private sector involvement in crisis prevention and resolution", which derived from the basic principle "that private investors and creditors expect to bear the consequences of their decisions and do not seek to be 'bailed out' by the official sector".

2005), it is debatable whether all criteria for exceptional access were fulfilled. Future adherence to the new framework will be critical to set the right incentives in line with the objectives of the framework. Second, recent experience has highlighted the importance of the qualitative dimensions of private sector involvement. An efficient crisis resolution process should lead to a situation that is sustainable and not hindered by a stalemate in the negotiations between sovereign debtors and their private sector creditors. Generally speaking, this quality has several facets: effectiveness in bringing a country's external position back to a sustainable path; timeliness and orderliness with which a viable solution is reached; degree to which the legal and contractual rights and obligations of all parties are respected (whereby unilaterally imposed solutions should be considered only under well-specified conditions and as measure of last resort); and a sustainable combination of contributions by the debtor country, private creditors and official creditors as well as among private creditors themselves.

Over recent years, progress has been made in the development of new instruments that should promote an orderly resolution of sovereign debt crises in future, where two elements are particularly important:

– First, the more widespread introduction of *Collective Action Clauses (CACs)* in sovereign bond contracts. Such clauses are aimed at fostering early dialogue between the debtor and the bondholders, avoiding situations where a minority of bondholders block an agreement on a change in the terms of the contract, and ensuring that disruptive legal action by individual creditors does not hamper the debt workout. Such provisions were already included in bond contracts issued under some jurisdictions (e.g. English law), but were not the market norm in other jurisdictions (e.g. New York law). From early-2003 on, however, market practices have been adapted in the latter jurisdictions, and all sovereign bond contracts are now issued with CACs.[8] In future, the use of these clauses might therefore become highly relevant when sovereign debtors face acute payment problems. In this report, however, the use of CACs in debt restructuring is only discussed in the context of bond exchanges, because it is only there that some practical experience has been gained.

– Second, the recent agreement between some emerging market issuers and some private sector representatives on a set of *"Principles for Stable Capital flows and Fair Debt Restructuring in Emerging Markets"* (IIF et al, 2004). These principles were developed by a group of key emerging market countries – including Brazil, Korea, Mexico – and by international banks and other investors, coordinated by the Institute of International Finance. The Principles were endorsed at the G20 meeting of finance ministers and central bank governors in Berlin in November 2004. They set out guidelines for the behaviour of debtors and creditors in normal times but also in cases of stress. Going forward, the Principles may prove to be a factor in helping to shape a more orderly process for resolving sovereign crises.

The international community also discussed a possible statutory approach to debt restructuring, i.e. an approach embedded in international law, notably under the form of a sovereign debt restructuring mechanism (SDRM). Even though the proposal was considered unfeasible at that stage in April 2003, the discussions helped to improve understanding of the issues at stake and in nurturing a consensus on the use of CACs and on the Principles for Stable Capital Flows and Fair Debt Restructuring in Emerging Markets.

8 However, most bonds issued under New York law use mainly majority amendment clauses, and do not include clauses that either provide for collective representation to avoid disruptive legal action by creditors or foster early dialogue, coordination and communication between creditors and a sovereign debtor, as recommended by the G10 in their September 2002 report on contractual clauses.

2 OPERATIONAL INSTRUMENTS TO PROMOTE THE INVOLVEMENT OF PRIVATE SECTOR CREDITORS

2.1 TYPES OF CAPITAL FLOW AND PRIVATE SECTOR INVOLVEMENT

The precise nature of private sector involvement in crisis situations depends on the types of financial flow concerned (see Box 1 for a brief review of stylised facts concerning capital flows to main emerging markets). Two main forms of debt are relevant for emerging market economies, notably bank loans and bonded debt, which raise different questions in terms of debt restructuring. In countries with a significant amount of bank loan debt, the involvement of private creditors typically assumes the form of a London Club arrangement[9] (for debt owed by the sovereign) or rollover agreements (for debt owed by the private sector). In a rollover foreign commercial banks agree to temporarily maintain a certain amount of short-term debt to domestic financial or non-financial institutions. Decisions concerning a rollover are usually taken in a concerted way by major banks, which monitor developments related to the rollover and to the financial situation of the debtor country. The recent resumption of financial inflows to emerging market economies in the form of bank loans implies that the role of commercial bank creditors should not be overlooked. At the same time, bank loans are increasingly extended to the non-financial private sector in EMEs, so that crisis resolution instruments that are targeted at bank loans to sovereigns may gradually lose importance.

With the move towards emerging market financing through bond issuance in the late 1980s to the mid-1990s, issues related to bond restructuring have gained in importance. In contrast to bank loans, bonded debt typically involves a greater number of creditors. As bondholders are usually more atomised and dispersed than commercial banks, bonded debt may raise greater challenges in terms of creditor coordination in the case of a restructuring. . Bond exchanges have become a common technique to involve the private sector in such circumstances. They amount to exchanging the existing bonds for new ones with different conditions.

9 The London Club is an informal forum which has dealt with restructurings of bank loans to sovereign debtors since 1976.

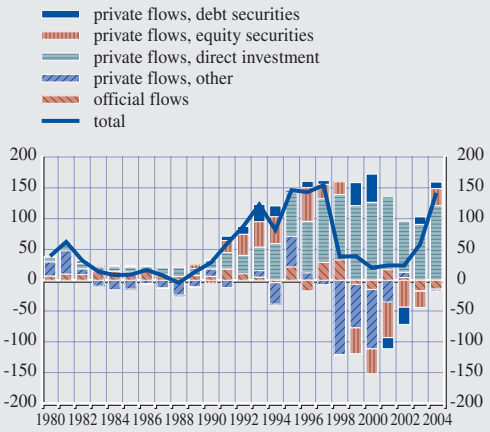
Box 1

STYLISED FACTS ON THE COMPOSITION OF CAPITAL FLOWS TO MAIN EMERGING MARKET ECONOMIES

Since the early 1990s private capital flows have been the dominant form of capital flows to emerging market economies (EMEs) and have recently started to resume. Net foreign direct investment (FDI) has proven to be the least volatile and the largest single component of net inflows to EMEs since 1990. Bond flows were the swiftest to respond to capital account liberalisation in EMEs in the early 1990s and have constituted an important part of emerging markets finance throughout the 1990s. However, large net outflows have been recorded since 2000. A recent development in sovereign bonds has been the relatively widespread introduction of CACs, including in bonds issued under New York law (about 40% of outstanding sovereign bonds currently include CACs). Other private flows, which mainly comprise bank loans, were affected by sovereign defaults in Latin America in the early 1980s and remained largely negative until the turn of the century. This long period of net outflows partly reflects a large fall in net bank lending to Asia, but is also linked to substitution of cross-

Chart A Net capital flows to selected emerging market economies, breakdown by instrument

(USD billion)



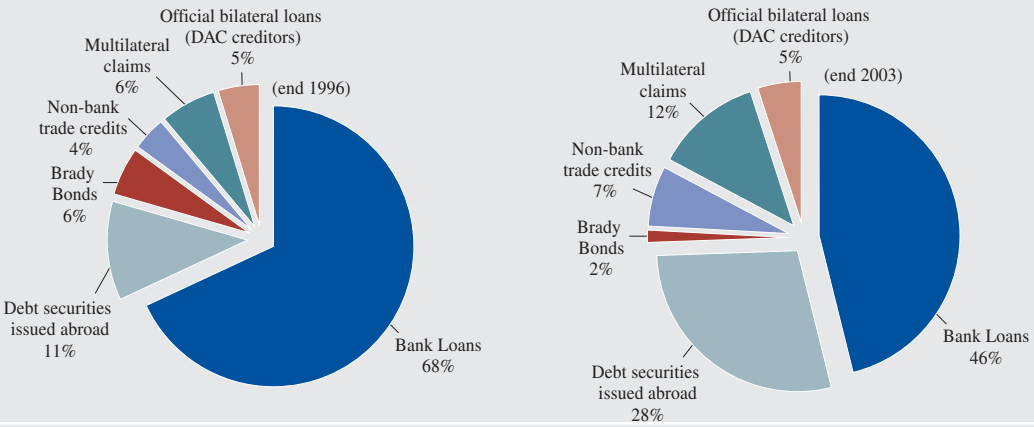
Notes: Net capital flows are defined as the sum of net direct investment, net portfolio investment, and other investment flows. They are equal to the balance on the financial account minus the change in reserve assets in the standard balance of payment presentation (IMF's Fifth Balance of Payments Manual). This implies that Fund financing, as part of the reserve assets, is not included in the capital flows. The following emerging market economies are included: Argentina, Brazil, Chile, China (Mainland), China (Hong Kong), China (Taiwan), Colombia, Indonesia, Malaysia, Mexico, Russia, Singapore, South-Korea, Thailand, Turkey and Venezuela.
Source: IMF, World Economic Outlook and International Financial Statistics, own calculations.

border loans for domestic loans by foreign bank subsidiaries. More recently, these flows have turned positive in response to increased borrowing in Asia and in emerging European economies.

The trends in terms of financial inflows are reflected in the composition of outstanding external debt (Chart B). At the end of 2003, bank loans constituted a significant share of total external debt (especially in Asia), albeit significantly lower than that in 1996. Debt securities are the second most important group, accounting for more than ¼ of total debt (in Latin America more than 40%). Debt to the official sector accounts for less than ¼ of total external debt of major EMEs. The most significant trend since 1996 is the replacement of bank loans by debt securities in the composition of external debt. The share of multilateral claims in external debt has almost doubled in the period under consideration, reflecting mainly the large IMF programmes in a number of countries (Argentina, Brazil, and Turkey).

Chart B Outstanding External Debt of Major Emerging Markets, breakdown by instrument

(In percent)



Note: Emerging market countries are listed in the note to Chart A.
Source: Joint BIS-IMF-OECD-World Bank statistics on External Debt

2.2 MAIN INSTRUMENTS TO FOSTER THE INVOLVEMENT OF PRIVATE SECTOR CREDITORS

Apart from the instruments developed recently by the international community (the wider usage of Collective Action Clauses and the adoption of the Principles for Stable Capital Flows and Fair Debt Restructuring), various instruments have been used in past crises to facilitate the involvement of private creditors. These include in particular bond exchanges and interbank rollovers that as the key instruments have contributed to the resolution of a number of crises over the past ten years. Other instruments have also been relevant, for example temporary suspensions of debt service (through standstills or the imposition of capital controls) or the provision of financing on a contingent basis (private contingent credit lines). The remainder of this section reviews the experience with these instruments, notably bond exchanges, interbank rollovers, standstills, capital controls and private contingent credit lines.[10]

BOND EXCHANGES (SEE ALSO ANNEX 2 FOR A MORE DETAILED ANALYSIS)

In a bond exchange, participating bondholders agree to substitute their existing bonds for new bonds with different terms. Bond exchanges are initiated through an exchange offer by the sovereign debtor, which individual bondholders may accept or decline. Depending on the terms of the new bonds, the relief provided by bond exchanges can range from temporary cash-flow relief to a reduction in the face value of the outstanding amounts.

Sovereign bond exchanges are a rather recent phenomenon in the post-Second World War era. Since 1999, at least seven sovereigns have carried out bond exchanges[11], thereby ending the existing perception that bonds enjoyed de facto seniority.[12] Each of these cases differed in terms of the ownership of the bonds being restructured,[13] the timing of the exchange offer (pre-default, e.g. Pakistan, Uruguay, Ukraine[14] and Moldova versus post-default, e.g. Argentina, Ecuador, and Russia), and the nature of the dialogue with creditors (from wide-ranging contacts with creditors at an early stage by Uruguay to limited contacts in the case of Ecuador). Pre-default exchanges tended to be completed more quickly than post-default exchanges and seem to have resulted in smaller haircuts. Creditor participation has been high in all cases (with participation rates ranging between 93% in the case of Uruguay to 99% in Pakistan and Ukraine), with the notable exception of Argentina (76%). In Ukraine, Ecuador and Uruguay, holdout creditors were eventually paid in full by the debtor.

Bond exchanges, by themselves, do not directly address collective action problems, as they require the consent of individual bondholders. Nevertheless, in some cases, legal techniques have been used to bind in minority creditors. In a number of exchanges of bonds that included Collective Action Clauses (Ukraine, Moldova and Uruguay), majority restructuring provisions were used to bind all creditors. In

10 The experience of the London Club is not analysed in detail in this report, since (i) bank loans to sovereign debtors have declined in importance compared with bond financing and the majority of more recent bank loans went to private debtors and (ii) in most recent crises in the 1990s, with the notable exceptions of Russia, Indonesia and Serbia, the mechanism of the London Club creditors has not been invoked to resolve sovereign crisis. Nevertheless, should there be cases in future where medium-term loans from commercial banks represent a significant portion of a sovereign's outstanding debt, the London Club is likely to be the mechanism that is invoked to help organise a restructuring.

11 In addition, in 2004 Dominica attempted to exchange commercial debt for new bonds. By September 2004 holders of 72% of eligible claims had participated. Also the Dominican Republic is due to launch a bond exchange in the second quarter of 2005 (see IMF (2005)).

12 In the 1980s the incidence of payment difficulties on bonds was small relative to that of other types of debt, suggesting that some debtors might have been affording bonds preferential treatment. In that period, four countries restructured bonds: Costa Rica and Guatemala without incurring defaults, and Panama and Nigeria after defaults. None of these cases involved any debt reduction.

13 Predominance of retail investors, e.g. in Ukraine, versus holdings by large institutional investors (Ecuador); large exposure of domestic creditors (Argentina) versus non-residents (Ecuador, Moldova).

14 Ukraine launched its debt exchange while it was still up-to-date on its payments. However, when grace periods for two later payment defaults expired, Ukraine was in default until the completion of the exchange.

Ecuador, where none of the bonds included such clauses, exit consents[15] were used to make the old bonds less attractive and thus to reduce the incentives for holding out. In Uruguay an innovative use was made of both Collective Action Clauses (on Samurai bonds) and exit consents (on New York law bonds). By contrast, in Pakistan, the bonds contained such clauses but the sovereign chose not to use them because of concerns that calling a bondholder meeting might actually facilitate the organisation of bondholders opposed to a restructuring.

The experience with bond exchanges so far has shown that creditors and debtors have been able to renegotiate sovereign bond contracts with high participation rates and limited litigation despite the absence of a negotiating framework. At the same time, when considering the applicability of these experiences to future cases some caveats have to be borne in mind. The first caveat relates to the complexity of the bond exchange as the cases so far concerned countries with a relatively small number of outstanding bonds. The higher the number of bond issues to be restructured and the greater the weight of bonds in the overall indebtedness of a country, the more difficult a debt exchange might be.[16] The second caveat relates to the possible lack of transparency in bond exchanges. The diversity of approaches used in the past – while providing flexibility for the debtor – has entailed a high degree of uncertainty for creditors about the procedures and the final outcome,[17] which might contribute to the difficulty of achieving timely agreements in the future. While the threat of litigation did not disrupt past reschedulings, several court cases are now pending against Argentina. The third caveat concerns the fact that post-default cases have tended to yield higher haircuts than pre-default cases. A positive reading of this difference is that with the launching of a debt restructuring at an early stage, a country avoids costs associated with default and hence needs a smaller haircut. But a negative reading could be that a pre-default exchange might fail to lead to a sustainable situation, although evidence so far is inconclusive. It might also be that in a post-default situation a debtor is in a stronger position to table a "take it or leave it" offer.

The increasing inclusion of Collective Action Clauses in recent sovereign bond issues could have implications for future bond exchanges. It is expected that sovereign debtors will rely more often on these provisions when aiming to restructure bonds, either alone or together with bond exchanges. In combining such clauses with bond exchanges, the restructuring process can in principle benefit from the positive features of both instruments. Collective Action Clauses have the advantage of allowing amendments to the terms of existing bonds with majority voting provisions which are also binding on minority creditors. Bond exchanges have the advantage of allowing the replacement of several bond series with a single new instrument (whereas with Collective Action Clauses a debtor needs to change the terms of each individual bond series, unless there are aggregation clauses as used by Uruguay).

ROLLOVERS (SEE ALSO ANNEX 3)

Rollover agreements are informal arrangements in which foreign commercial banks commit to temporarily maintaining a given level of short-term exposure to a crisis-hit economy. Even though the claims concerned virtually never concern sovereign foreign debt and are towards financial or non-financial institutions, they can become important for the sovereign debtor because of explicit or implicit sovereign guarantees that

15 Under exit consents, bondholders participating in the exchange automatically vote in favour of the amendments to certain non-financial terms of the bonds that they are about to leave. For bonds issued under New York law, amendments to non-financial terms typically require a simple majority only (as well as the issuer's consent).

16 While Ecuador exchanged six different bonds, Ukraine five and Uruguay 19 series of bonds, in the case of Argentina restructurings involved about 90 different bonds.

17 This also includes the opportunity for the debtor to avoid a meaningful dialogue with its creditors. If a country is unwilling to enter into such a dialogue, it can simply present a "take-it-or-leave-it" option. Creditors are left with the choice of either accepting the offer as it stands or facing the substantial uncertainties and costs of resorting to litigation.

can exist to avoid a systemic banking system collapse or because a withdrawal of such international financing would trigger a currency and banking crisis.

Rollovers of external bank claims were agreed during the crises in South Korea, Thailand and Indonesia (1997-98), Brazil (1999) and Turkey (2000-2001). In each case the country's authorities invited major creditor banks to meetings in which they explained the country's economic situation and requested a rollover. The debtor countries' central banks introduced monitoring systems, the coverage of which was largely limited to interbank transactions of domestic banks (including their offshore branches and subsidiaries) vis-à-vis foreign banks. The debt to be rolled over was backed by a guarantee from the government of the country in question, which in turn was de facto backed by large loans from the IMF. The IMF played a key role in helping the debtor country monitor the rollover and disseminate information (daily or weekly flow of data, rollover ratios and net changes in exposure), often conducted via IMF Executive Directors to the central banks of the creditor countries.

Regular teleconferences among the central banks of large creditor countries (mostly G10; Spain and Portugal participated in the case of Brazil) were organised in order to monitor developments and exchange information on contacts with creditor banks. Debtor countries' representatives participated in the conference calls in the Brazilian and Turkish cases, but not in the cases of South Korea and Indonesia. In the case of South Korea, an agreement was reached within the G10 that central banks would actively persuade their creditor banks to stick to the rollover agreement ("moral suasion"). In the other cases, the decision to exert such moral suasion was left to the discretion of each individual central bank. While some central banks contacted commercial banks in their countries as a mild form of moral suasion, others refused to exert any form of pressure.

Experience with rollover agreements has been mixed. The rollover in South Korea turned out to be successful in providing a temporary breathing space before a more comprehensive restructuring was put in place. The Brazilian rollover was also judged successful; Brazil's close contacts with creditor banks, its continuous disclosure of information and a solid adjustment programme were considered helpful in that respect. By contrast, in the Turkish case, the rollover was unsatisfactory, with creditor banks reducing their exposure by more than 40% during the monitoring period. The non-satisfactory result in the case of Turkey can be attributed to (i) the fact that interbank exposures did not constitute the core of Turkey's macroeconomic problems, (ii) concerns regarding the authorities' political commitment to adjustment measures, and (iii) weak implementation procedures (no moral suasion, inadequate coverage and ineffective monitoring).

A key lesson from past experience relates to the need for timely action so as to avoid large outflows before a rollover is attempted. Another important lesson is that a rollover is likely to be most successful when there is a strong commitment on the part of the authorities to an IMF adjustment programme, when creditors are convinced that the financial problems are of short-term nature only, and when there is a clear agreement on the range of instruments covered. Securing the participation of all major creditors also contributes to a higher level of acceptance by individual creditors.

– The review of experience also indicate that disclosure of information to creditors about rollover participation rates and changes in exposure can help reduce collective action problems among creditors. Likewise, the publication of the names of creditor banks participating in the rollover exercise might have a positive impact. Finally, moral suasion by the official community can help to increase the chances of a successful rollover. In some cases, particularly when

the problems of the banking sector in the debtor country could have systemic implications for the international financial system, moral suasion may be warranted. However, central banks in creditor countries might be faced with a conflict of interest given their mandates to ensure domestic financial stability.

STANDSTILLS (SEE ALSO ANNEX 4)

The term standstill refers to all cases of temporary suspensions of sovereign debt service payments, either with or without the agreement of creditors (a moratorium). In rare cases, in particular when the country's payment problems are of temporary nature (liquidity problems), such a temporary suspension of payments might be sufficient to put in place remedial policy measures and to resume payments after a short while. In cases where debt is unsustainable, a standstill may offer a temporary solution pending a restructuring of the liabilities concerned. Standstills are thus typically not a stand-alone instrument and have to be seen as a bridge to achieving a more permanent solution through the use of other instruments for sovereign debt restructuring (e.g. bond exchanges or London Club reschedulings). Moreover, a standstill may or may not be accompanied by the imposition of foreign exchange or capital controls to reduce capital flight.

Except for claims of commercial banks (London Club), experience with standstills on sovereign debt to private sector creditors is limited.[18] The London Club has established an informal standstill procedure under which banks refrain from commencing legal action against the sovereign once countries have approached the London Club. Regarding sovereign bonds, no similar forum or procedure has been established in the post-Second World War era,[19] contributing to the long-standing perception that bonds were immune from rescheduling. Apart from a few bond restructurings during the debt crisis of the 1980s, it was mainly in the late 1990s that experience was gained with restructuring of bonds through bond exchanges. Ecuador's and Russia's exchanges were preceded by defaults. Argentina maintained a unilateral standstill on a significant share of its sovereign bonds since December 2001, pending the restructuring that was completed in early-2005.[20]

What lessons can be drawn from the existing evidence? Standstills can play a useful role in promoting the involvement of private sector creditors. Both the London and Paris Clubs use standstills as a normal part of their procedures, and in some recent bond exchanges – Russia, Ecuador and Argentina – standstills have been invoked. While exchanges that have been preceded by standstills have taken considerably longer to complete than those launched pre-default, higher levels of debt reduction have been achieved, reducing the debt to more sustainable levels. The limited number of cases, however, makes it difficult to draw general conclusions. It is to be expected that, if the official sector were to adhere firmly to the criteria of the exceptional access framework, countries might be faced with the need for a standstill more often. On the other hand, more predictability and consistency on the part of the official sector in implementing the overall crisis management framework might provide incentives for debtors and private creditors to participate in early constructive dialogue.

18 There is also considerable experience of standstills in the context of restructuring debt to bilateral official creditors (which is not relevant in the context of PSI). Paris Club reschedulings, which started in 1956, typically involve a standstill – i.e. the country will not pay the debt to be rescheduled and sovereign creditors will not press their claims – in the period between a Paris Club agreement and the ensuing bilateral agreements. Before approaching the Paris Club for a rescheduling, a country might have stayed up-to-date with its obligations or might have already accumulated arrears.

19 Some examples of bondholder committees can be found in the period before the Second World War. For instance, Romania reached an agreement with various bondholder committees on the term and conditions of a standstill in 1932.

20 Other bond exchanges were completed without the countries suspending payments (e.g. Pakistan is mentioned as a case in which the credible threat of default – given the Paris Club's insistence on the comparable treatment clause – contributed to the successful restructuring of the bonds), and are therefore not regarded as standstill cases.

CAPITAL CONTROLS AS AN INSTRUMENT FOR CRISIS RESOLUTION

The imposition of capital controls may be considered as a coercive version of private sector involvement or as an accompanying tool to other instruments. Such controls aim to curtail capital flight and thus strengthen a country's external financing position. In some cases, capital controls may boil down to a forced payment suspension by private financial or non-financial debtors. Technically, the controls can apply to both capital account and foreign currency transactions.

Countries where capital controls have been implemented to restrict capital movements include Malaysia, Russia and Ukraine. In Malaysia, capital controls were introduced in September 1998, in conjunction with the shift to a fixed exchange rate regime, in order to eliminate offshore trading of the Malaysian ringgit and thus to curb speculative pressures on the exchange rate. These controls did not prevent either the Malaysian government or private debtors from staying current on their foreign obligations. The Malaysian strategy is frequently seen as an alternative to IMF financing, as, contrary to other Asian crisis countries, it did not resort to an IMF supported programme.

In Russia, the restrictions on capital and current account transactions, introduced in June 1998 at the height of the financial crisis, assumed an extreme form, as all legal entities (banks and non-banks) were explicitly forbidden to service their external debt. Subsequently, Russia restructured its rouble denominated debt falling due between August 1998 and December 1999, equivalent to more than 10% of GDP. In addition, Russia was unable to meet its obligations on Soviet-era debt to official and private sector creditors, and accumulated substantial arrears to Paris and London Club creditors. The Russian default was unprecedented, as no other country in recent history had defaulted on a bond denominated in local currency and subject to local law.

In Ukraine, capital controls were tightened in the second half of 1998 in response to an intensification of short-term capital outflows triggered by the Russian crisis. However, controls were not extended to the servicing of external debt. Ukraine entered an IMF extended fund facility in September 1998. One of the conditions of the programme – tight net international reserves floors – prevented net payments of principal to private creditors, leading Ukraine to start negotiations with its creditors. Ukraine's debt restructuring took place in four stages between 1998 and 2000 and covered debt for an amount of 9% of GDP.

Capital controls can theoretically be useful in temporarily easing external financing constraints, and may be a useful tool accompanying other instruments. In practice, however, evidence suggests that capital controls have not been effective in stemming capital outflows and allowing for a faster recovery. In the case of Malaysia it is sometimes suggested that capital controls had an effect on both the size and composition of capital flows, which allowed the government to take stimulatory action in order to avoid large output losses. However, an alternative explanation to Malaysia's superior performance relative to other Asian economies that did not impose capital controls (e.g. South Korea, Indonesia and Thailand) can be given by its stronger fundamentals (smaller foreign debt and a sounder banking sector) and measures that were taken prior to the crisis (such as limits on bank's net foreign currency positions and fiscal consolidation). In the case of Russia, it is possible that the imposition of capital controls gave the authorities some breathing space, although the recovery of the Russian economy was mainly attributed to a marked rise in oil prices, exchange rate adjustment and strict macroeconomic policies.

The imposition of capital controls in the cases of Malaysia and Ukraine did not imply significant losses for private creditors, as debtors remained current on their obligations. By contrast, in Russia capital controls were

more coercive in encouraging private sector involvement, as the measures implemented contributed to the default of many Russian banks and corporations on their foreign obligations. However, there is no indication that restrictions on capital flows had long-lasting effects in terms of capital market access for any of the three countries analysed.

PRIVATE CONTINGENT CREDIT LINES

Private contingent credit lines are standing credit lines with private banks, upon which countries are entitled to draw in the event of a crisis (defined in terms of contractually agreed triggers). Such instruments, which are negotiated before financial difficulties arise, are aimed at countering capital shortages during financial crises through the provision of additional funds. By helping to overcome liquidity problems, such credit lines could also decrease the incentives for other investors to withdraw their funds, thereby strengthening confidence and helping to forestall crises.[21]

There are only few examples of countries that have negotiated private contingent credit lines. Among them are Argentina, Mexico, Indonesia and South Africa.[22]. In December 1996, 13 foreign banks entered into an agreement with Argentina to lend up to USD 6.1 billion against collateral at a premium of 30 basis points over LIBOR for a certain commitment fee.[23] The negotiated credit line was to be collateralised through government securities. The private credit line was activated in August 2001, at the height of the Argentinean crisis, in conjunction with an IMF package, but was too limited to prevent default. This was attributed to the fact that many of the government securities provided as collateral had been retired from the market as a result of an earlier debt exchange, which reduced the private credit line to approximately USD 1.5 billion.

Mexico established a USD 2.5 billion credit line in November 1997, according to which the interest rate would rise both after drawing and in the event of credit downgrades. When the country decided to draw on its credit line in the wake of the Russian crisis, banks exerted strong pressure on the authorities not to use it. Implicitly, banks resented having to provide funding at low pre-committed spreads at a time when spreads for Mexico and other emerging market countries were much higher. Mexico went ahead regardless and yields on the country's debt rose by 100 basis points in the immediate aftermath, but quickly fell back.

While private credit lines can, in principle, provide a safeguard against adverse developments, the limited experience so far suggests that private contingent credit lines may have to be designed differently to become an attractive instrument. In their present state, private contingent credit lines will typically be drawn upon in times when a country is unable to access equivalently priced financing from other sources, owing to a general aversion to emerging market risk or to a decline in the country's creditworthiness. The result is an increase in bank exposures to borrowers at precisely the time when they are seeking to reduce them.

The limited use of private credit lines so far can be attributed to several factors: (i) dynamic hedging, i.e. when a country draws on the credit line, financial institutions may decide to reduce their other exposure to the country or even to the same category of countries, which might lead to contagion effects (this problem can be reduced to a certain extent if the credit line is collateralised as in the case of Argentina); (ii) restrictive conditions under which the line could be drawn upon; and (iii) rigid fee and spread structures which do not

21 See also IMF (1999b).

22 The cases of Indonesia and South Africa are not in detail, due to the limited information available.

23 The World Bank provided a contingent loan of USD 505.5 million in November 1998 (as part of a special structural adjustment loan) to support the private credit line. The World Bank loan could only be drawn together with the private credit line and proceeds would be made available to the central bank or used to meet margin calls and provide collateral. The loan was aimed at reducing the probability of default by Argentina on its contingent borrowing, thereby making the private contingent credit line more attractive to lenders and less costly.

allow for adjustments in accordance with the country's credit rating.

2.3 THE INVOLVEMENT OF DOMESTIC CREDITORS IN THE MANAGEMENT OF FINANCIAL CRISIS (SEE ALSO ANNEX 5)

– As outlined at the start of this paper, private sector involvement refers to contributions by foreign private creditors and therefore concerns, by definition, transactions between resident debtors and non-resident creditors. Nevertheless, domestic creditors may also play an important role in crisis resolution. In most cases, the payment difficulties of sovereign debtors concern not only obligations to external creditors, but also obligations to domestic creditors. The behaviour of domestic agents is also important as they might trigger capital flight and, in particular countries with high informal dollarisation, currency substitution, with potentially destabilising effects on the balance of payments position. The precise effect of currency substitution will depend on the exchange rate regime. In fixed exchange rate regimes currency substitution directly impacts foreign reserves, while in flexible exchange rate regimes it leads to wide fluctuations in the exchange rate, which, in cases of external debt vulnerabilities, can trigger or magnify a capital account crisis.

– The sovereign will in general enjoy greater flexibility to involve domestic creditors in crisis resolution through its general law-making and regulatory powers. The array of tools include unilateral restructuring of domestic debt, suspension of payments, the imposition of "bank holidays" or deposit freezes, moral suasion to absorb public debt, capital controls, and the asymmetric conversion to domestic currency of banks assets and liabilities in highly dollarised economies.

– The implementation of measures to involve domestic creditors in crisis resolution and the assessment of their effect is complicated by two main factors. First, the involvement of domestic creditors is difficult to disentangle from that of foreign creditors. With the opening of capital markets, the distinction between foreign and domestic creditors is becoming increasingly blurred. Domestic investors have access to debt instruments issued by the sovereign under domestic and foreign jurisdiction; likewise, foreign investors can buy instruments issued under local law. In addition, given the surge of financial FDI, international banks may play the role of both external and domestic creditors (through local branches and subsidiaries).[24] Second, the involvement of domestic creditors is difficult to disentangle from the notion of domestic adjustment, as in both cases the burden is ultimately borne by residents and is not limited to banks or their shareholders.[25]

Argentina, Ecuador, Russia and Turkey are examples of countries where domestic creditors constituted an important part of the creditor base. The following aspects, concerning measures to involve the domestic private creditors in these countries, are worth highlighting:

– The negative impact of domestic private sector involvement on the fragilities of banking systems and on the domestic

24 In this context considering DPSI and external PSI in isolation may be misleading to the extent that international creditors tend to manage country risk on a consolidated basis. Crisis resolution measures aimed at domestic banks partly or fully owned by international institutions may actually aggravate problems in the short run if the parent company reacts by reducing its exposure to the country concerned. Additionally, anecdotal evidence suggests that crisis situations may induce some discrimination against domestic banks owned by non-residents with regard to their access to central bank liquidity or to other government initiatives to restore the soundness of the financial system.

25 DPSI measures can have a large impact on the solvency of domestic banks by affecting the value of both their assets and liabilities. When losses exceed the banks' capital, the costs may affect depositors and taxpayers (as the government tries to re-capitalise distressed banks). Furthermore, a unilateral restructuring of domestic debt normally imposes a cost on present and future pensioners, to the extent that pension funds, given limited investment opportunities, invest a large share of their portfolios in government securities.

economy imposes a trade-off on policymakers between preserving the stability of the banking system and avoiding external sovereign default. Contributions by the domestic banking system to alleviate sovereign debt could be counterproductive, as they may lead to solvency problems in the banking system. Experience suggests that when the crisis originates in the banking sector (Ecuador and Turkey), the objective of preserving the banking system is given immediate priority. Conversely, when the banking system is sound at the outset of a crisis, as was the case in Argentina, policymakers are more tempted to involve the banks in restructuring domestic debt prior to seeking a restructuring of external obligations.

– Policymakers tend first to exhaust their options for involving domestic creditors in crisis resolution (e.g. the "mega-swap", "patriotic bond" and the capital controls in Argentina) before resorting to external default. By contrast, after external default, the authorities tend to be more lenient with domestic creditors than with foreign creditors (e.g. in Ecuador the debt restructured with domestic creditors implied a reduction of net present value of 9%, compared with a 35% cut for foreign creditors).

3 LESSONS AND POLICY IMPLICATIONS

Ensuring the involvement of private sector creditors is crucial to ensure an effective management and orderly resolution of financial crises in emerging market economies. The increasing share of private capital flows to those economies and the scarcity of official finance imply that the private sector has a key role in resolving emerging market financial crises. It also appears to be an issue of effectiveness and equity to impose the costs of a large-scale financial crisis partly covered by the official sector also on the private sector, including foreign creditors who have enjoyed higher returns and must thus bear some risk. Excluding such involvement ex ante would make the timely and orderly resolution of situations of financial distress much more difficult and would distort risk-taking decisions in financial markets. Private sector involvement is therefore key for the efficient financing of global financial markets. The international community has taken several steps towards defining a crisis resolution framework that acknowledges the role of private sector creditors. An important step was taken at the IMF and World Bank Annual Meetings in Prague (2000), where the IMFC envisaged such involvement either on a voluntary basis or through debt restructuring. In practice, however, the international community continued to extend large support packages, thus relying on a catalytic role of Fund engagement, expecting that it would trigger stronger commitment by the private sector, even in those cases where, with hindsight, timely engagement of voluntary or encouraged private sector involvement would have been more appropriate. This problem was addressed through the establishment of clear criteria for IMF lending above predefined limits (exceptional access framework) in 2002/2003. If implemented rigorously, this should prevent over-reliance on official lending and increase the role of the private sector in crisis resolution. As such, it constitutes an important complement to the Prague framework, even though its application has so far proven difficult. In conclusion, it would therefore seem that further progress is required in implementing the existing framework for crisis resolution.

Past experience with the role of the private sector in the resolution of financial crises shows that, in certain cases, the existing instruments have successfully contributed to minimising the economic disruptions caused by crises. However, the effective use of these instruments requires predictable and strong commitment of all parties involved:

– Role of the sovereign debtor: The success of private sector involvement depends to a significant extent on the country's economic fundamentals and its track record prior to the crisis, underscoring the importance of effective surveillance and crisis prevention. Success also hinges on the country's resolve to implement necessary domestic adjustment measures. The track record and a credible commitment to strong domestic adjustment helps convince private creditors that problems will be short-lived and that their interests will be best served by maintaining exposure to the country.

– Role of "good conduct" on the part of the debtor and creditors: A transparent process providing for early dialogue between a debtor and its creditors might help to secure private sector involvement, whether to prevent a liquidity problem from developing into a full-scale crisis or to foster a smooth restructuring of unsustainable debt. Good faith actions by both parties are fostered through the Principles for Stable Capital Flows and Fair Debt Restructuring in Emerging Markets recently agreed between some emerging market issuers and some private sector representatives.

– Role of the IMF: In addition to the critical role played by IMF surveillance in crisis prevention, the IMF plays a key role in crisis situations. First, accurate and timely diagnosis by the IMF of a country's

vulnerabilities helps identify at an early stage the need for private sector involvement. In this context, the objectivity and overall quality of the IMF's debt sustainability analysis is key. Second, a consistent implementation of the exceptional access framework and the lending into arrears policy helps secure the involvement of private creditors. This will not only reduce moral hazard and provide the right incentives for debtors and private creditors, but also safeguard the IMF's own resources. Third, by advising on macroeconomic policies and setting realistic targets as part of an adjustment programme, the IMF has an impact on the negotiations between the debtor country and its creditors. It should, however, refrain from micromanaging them, not least because of its own creditor status.

– Role of ministries of finance and central banks in creditor countries. Experience suggests that the authorities of key creditor and debtor countries have an important role to play in conducting mutual surveillance, maintaining a close policy dialogue, and promoting orderly crisis resolution. These authorities can also contribute to a steady flow of information that is one of the critical elements in crisis resolution.

Turning to the specific instruments for involving the private sector, the following aspects can be highlighted:

– Bond exchanges have proved to be suitable instruments for resolving sovereign debt crises. Even with a more widespread inclusion of Collective Action Clauses, bond exchanges might be useful to replace several instruments by one new bond issue, rather than changing the terms of each outstanding bond. A combination of the two instruments, i.e. Collective Action Clauses and bond exchanges, is likely to be used in future cases at least until other mechanisms for aggregating bond issues are found.

– The success of rollover agreements on short-term bank loans in stemming currency and banking crises depends on a number of factors: (i) timely action to avoid large outflows prior to the rollover agreement, (ii) a country's prior track record and its commitment to an effective reform programme, (iii) efficient crisis management by the debtor country, including disclosure of information to reduce collective action problems, and (iv) the extent to which the international community is willing to exert moral suasion on the creditor banks. Moral suasion may be warranted in cases involving systemic risks. However, given potential conflicts of interest for central banks in creditor countries, to the extent that they are responsible for financial stability, their preparedness to exert moral suasion will depend on the circumstances of the country concerned and the likely implications for the international financial system.

– Standstills may be helpful in cases of sovereign debt servicing problems, as they allow time to be gained to reach an agreement on a more comprehensive restructuring arrangement or to implement an adjustment programme that helps to restore confidence. At the same time, the expectation of a standstill may bring forward a dash for the exit by creditors. So far, the experience with standstills on sovereign bonds is too limited to draw general conclusions. Sovereign debtors that suspended payments on their bonds before launching a bond exchange took longer to finalise the restructuring process, which might be seen as an indication of greater difficulties. However, they achieved higher debt reduction rates than the bond exchanges negotiated pre-default. A strict application of the exceptional access framework would affect the recourse to standstills and the willingness of creditors and debtors to participate in a constructive dialogue.

– The experience with capital controls is not conclusive. In principle, the imposition of restrictions on capital outflows might prevent capital flight in a crisis and thus provide the government with breathing space to implement macroeconomic policies aimed at a faster recovery. In addition, they might complement other measures. Nevertheless, when considering the usefulness of capital controls several caveats have to be borne in mind. First, the relatively sharp recovery in some countries that have imposed controls (e.g. Malaysia) appears to reflect sound fundamentals and timely policy action, rather than the positive effect of controls. Second, capital controls are not always watertight and can prove unsuccessful in stemming capital outflows. Third, once controls have been introduced, authorities may be faced with an exit problem and may delay their lifting for too long, with ensuing costs in terms of efficiency and resource allocation.

– Private contingent credit lines are likely to play a limited role in providing countries with effective insurance in the event of sovereign debt servicing problems. The main difficulty with this instrument is the dynamic hedging problem, leading creditors to cut back their overall exposure, in that, and similar countries, at the time of drawing. However, experience with market-consistent innovations to address borrowers' insurance needs commercially is still at an infant stage. The international financial institutions should stimulate research and encourage the private sector to explore alternative insurance-based or derivatives-based solutions to overcome sovereign liquidity problems.

Finally, the restoration of sovereign debt sustainability often requires domestic creditors to bear a part of the adjustment burden. However, asking for the involvement of domestic creditors may negatively affect domestic banking systems and the domestic economy at large. Policymakers may therefore be confronted with a trade-off between the preservation of a sound banking system and the involvement of domestic creditors in an attempt to avoid external default. In general, policymakers tend to first exhaust their options for involving domestic creditors in crisis resolution before resorting to external default. Evidence suggests, however, that it often proves unsuccessful to force domestic creditors to bear losses in an attempt to avoid default on international sovereign obligations. Hence, a comprehensive crisis resolution strategy, in which both foreign and domestic private sector creditors need to be taken into account, is warranted.

Overall, the review of experience gained in past financial crises suggests that crisis management practices have been largely following a case-by-case approach. This necessarily leads to uncertainty about how the official sector addresses different types of crises, which in turn might partially account for the very mixed results achieved so far. From a global welfare perspective, the resolution of international financial crises is too costly and takes too long. Efforts to improve predictability of crisis resolution processes – through guiding debtor, creditor and official sector behaviour – could lower overall costs of such crises and bring about a distribution of these costs among all parties involved that is likely to be seen as more appropriate from a general welfare perspective. In this regard, continued work to improve the framework for the resolution of international financial crises remains important.

Table 1 Survey of literature on moral hazard

	Objective	Methodology	Methodological details (e.g. period, data)	Results	Remarks
Zhang (1999)	To test whether emerging markets' bond spreads declined after the Mexican crisis as a result of creditor moral hazard.	EME bond spreads regressed (OLS) on fundamentals, a measure of international liquidity and a post-Mexico dummy.	Regression performed with quarterly Eurobond and Brady bond spreads for eight EMEs from 1/1992 to 2/1997.	Post-Mexico dummy is insignificant, suggesting that Mexican crisis did not increase creditor moral hazard.	Dell'Ariccia et al. (2002) hold that Mexican crisis is unsuited for test, because it was the first crisis of its kind, waking up investors and putting upward pressure on spreads.
Lane and Phillips (2000)	To assess whether news related to the availability of IMFsupport moves EME bond spreads as an indication of changes in creditor moral hazard.	Taking 2, 3, 5 and 10 day windows around news event, L&P examine the ratio of change in spreads to the standard deviation of spreads.	Based on daily EMBI and country spread data, the focus is on 22 events between 1994 and 1999 with news about IMF programs or the availability of IMF support.	Overall, little indication of moral hazard. Only the Russian default in 1998 increased spreads significantly, suggesting a reduction in creditor moral hazard.	Short term impact of events on spreads is difficult to determine, as spreads are highly volatile at the peak of a financial crisis.
Kamin (2002)	To examine whether EME bond spreads and capital inflows show patterns consistent with creditor moral hazard in response to the Mexican crisis.	Empirical models are used to gain insight in behaviour of EME bond spreads and capital inflows. Deviations between model predictions and reality contain information about moral hazard.	Models for EMBI spreads and capital inflows estimated with respectively monthly and quarterly data from 1992 to 2001.	Analysis of spreads provides no indication of moral hazard, but capital flows to EMEs are found to have exceeded predicted levels in 1996-97, suggesting (the temporary occurrence) of moral hazard.	Mexican crisis may not be suited to analyse moral hazard (see remark made with regard to Zhang).
Dell'Ariccia et al. (2002)	Test whether the Russian default caused long term reduction of creditor moral hazard. Analysis based on tests related to bond spreads	Test whether Russian crisis made spreads: 1) more sensitive to fundamentals (maximum likelihood estimation of pre- and post-crisis model); 2) significantly higher (correcting for fundamentals; 3) more disbursed between countries	Data from 1/1998-12/2000 from 2 data sets: 1) EMBIG weighted daily bond spreads from 21 EMEs and 2) Bondware launch spreads from 54 countries.	Spreads generally become more sensitive to fundamental (often significantly so), increased significantly and became more dispersed. All these results provide (strong) indications of reduction in creditor moral hazard after Russian default.	Several robustness checks confirm results with respect to Russian default. Tests also performed with respect to Asian and Mexican crisis, but results do not point at changes in creditor moral hazard
Spadafora (2002)	To test whether spreads on syndicated loans to EMEs declined after the Mexican crisis, as an indication of creditor moral hazard	Spreads on syndicated loans regressed on fundamentals, a measure of international liquidity and (post-Mexico) time dummies. Model also estimated for different debtor groups (e.g. banks).	Sample of 2360 term loans to 23 emerging markets from 1/1991 to 11/1997	Spreads on inter-bank loans declined after Mexican crisis, suggesting creditor moral hazard. However, results from analysis of loans to fin. firms and corporations are inconclusive	As only spreads on loans to banks show an unexplained decline after 1995, these results might highlight moral hazard from government or central bank guarantees.
Haldane and Scheibe (2003)	Test of creditor moral hazard focussed on the response of creditor banks' market value to IMF intervention events.	Pooled OLS regressions, to test if creditor banks' market value (corrected for stock market movements) responds to IMF intervention events in a 5 day window.	Data on share price response of seven UK banks – exposed to EMEs – to 26 IMF intervention events between 1995 and 2002.	Shares of banks exposed in EMEs often significantly outperform the market in response to announcements of sizable IMF loans, with banks most exposed to EMEs showing the largest out performance. This supports the creditor moral hazard hypothesis	The authors' starting point is that if IMF-interventions increase the value of banks' investments in EMEs, this encourages further investments in EMEs for non-fundamental, "moral hazard" reasons.
Evrensel and Kutan (2004)	Test whether news about IMF programmes causes temporary declines in EME bond spreads as indications of creditor moral hazard.	Country specific spreads regressed (OLS and GARCH) on fundamentals, measure of international liquidity and dummies for IMF events (announcement of negotiations and program approval in Thailand, Korea and Indonesia).	Daily bond spreads for Korea (5/1996-2/2003) and Indonesia (12/1996-2/2003). Daily data on fundamentals: only stock prices and exchange rates.	Announcements about an IMF programme influence only the bond spreads of the program country, not those of other countries. This indicated a limited – non sequential – form of creditor moral hazard	Dreher (2004) reports some methodological drawbacks (e.g. no adequate control for fundamentals; not clear whether IMF events changed investor perceptions

ANNEXES

ANNEX 1
CATALYTIC EFFECTS OF OFFICIAL FINANCING*

1 DEFINITION OF CATALYTIC EFFECTS[26]

Although various definitions of the catalytic effects of official financing exist in academic literature, the most comprehensive one is that of Cottarelli and Giannini (2002). According to the authors, "the IMF's involvement in a crisis has a catalytic effect to the extent that the announcement of an economic programme backed up by a limited amount of IMF resources (as compared to the size of potential capital outflows) increases the propensity of private investors to lend to the country concerned, thereby reducing the adjustment burden falling on the debtor country." According to this definition, the catalytic effect of IMF lending has three key features:

– First, it is intended to encourage the resumption of spontaneous private capital flows into the debtor country. As pointed out by Cottarelli & Giannini (2002), the spontaneous nature of such flows "means that catalytic official finance should be distinguished from other potential ways of addressing unstable capital flows, ranging from direct interventions (suspension of payments or capital controls) to milder actions (moral suasion, concerted lending), which have also found application at the international level in recent times." Such actions, which fall into the realm of PSI, induce non-spontaneous flows in the sense that they are directly and explicitly aimed at changing the size and/or composition of capital flows. Instead, the catalytic effect relates to spontaneous flows because such flows are solely the result of a change in investors' expectation associated with the presence of the IMF as a provider of a "good housekeeping" seal of approval, as a delegated monitor of the conditions in the debtor country, as an inducer of a change in that country's policies (conditionality) and/or as a provider of financial resources.

– Second, it alleviates the burden of domestic adjustment for the debtor country to the extent that it contributes to the closing of the financing gap and that it reduces the cost of capital by helping to induce a narrowing of market spreads.[27]

– Third, to be catalytic in nature the amount of resources committed by the IMF has to be small relative to the volume of capital flows that it catalyses, enabling the international community to close a potentially large financing gap through the mobilisation of a relatively small amount of official finance. Together with the second feature mentioned above, this explains why catalytic finance was included among the crisis resolution pillars of the Prague framework.

The Cottarelli and Giannini definition concentrates on the catalytic effects of IMF programmes in the area of crisis resolution. Other contributions have extended this concept to the area of crisis prevention, considering the possibility that the presence of a precautionary arrangement increases the volume of capital inflows to the country concerned. This annex makes reference to empirical contributions on the catalytic role of the IMF both in the area of crisis resolution and in the area of crisis prevention.

2 REVIEW OF PAST EXPERIENCE

The concept of catalytic official finance (COF) has gradually emerged over the last three

* Prepared by Javier Díaz Cassou (Banco de España).

26 This annex is based on Díaz Cassou, García Herrero and Molina Sánchez (2005) "New Evidence on the Catalytic Role of the IMF", mimeo, to be circulated soon.

27 Although this is independent of the catalytic effect itself, IMF lending also helps to reduce the country's cost of capital because it constitutes a cheaper source of capital than the market. The fact that, especially in the midst of a crisis, the interest rate attached to an IMF programme is significantly lower than the market rate does not necessarily mean that IMF programmes are conceded at a concessionary rate. Instead, it has been argued that this is a result of the preferred creditor status of the IMF, which implies a lower risk in its lending operations.

decades,[28] but it has only occupied a prominent position in the policy debate agenda since the capital account crises of the 1990s. We will therefore concentrate on the contributions that followed the Mexican crisis of 1994-1995.

Applying a variety of methodologies, three major approaches have been developed to test the hypothesis of the catalytic role of the IMF: 1) statistical analyses of capital inflows, 2) statistical analyses of spreads and 3) case studies. Table 1 summarises the main contributions. Overall, the empirical evidence to support the theory that the IMF has a broad-based catalytic effect on private capital flows is weak, and some studies even find that IMF programmes could actually promote capital outflows. It has been repeatedly pointed out, however, that the existing literature has certain methodological shortcomings that may have been addressed only partially. Some of these methodological shortcomings could tend to bias the results of the analyses towards a smaller catalytic effect. The following methodological shortcomings stand out in particular:

– First, a common problem in the empirical literature on international capital flows is the **poor quality of existing data**, especially in emerging markets, which may limit the reliability of the results of empirical analyses.

– Second, there is the problem of defining a valid **counterfactual**, i.e. a valid benchmark against which to compare actual capital flows after the concession of an IMF programme.[29] This is a complicated issue because it is impossible to know how net capital inflows would have evolved in the absence of an IMF programme, especially during a capital account crisis.

– Third, a methodological shortcoming which has been difficult to solve is the **sample selection problem**. On one hand, there is evidence that countries entering an IMF programme are weaker from the start, thereby attracting less capital inflows. On the other hand, there are different degrees of access to international financial markets, so some countries provide a better basis than others to test the catalytic role of the IMF.

– Finally, it has been pointed out that the **dynamic specifications** of the empirical contributions on the catalytic role of the IMF are weak or non-existent in most contributions, thus failing to consider the possibility of different time horizons in the catalytic role played by the IMF.

Despite these limitations, it must be emphasised that some studies do find evidence of a catalytic effect in certain circumstances. Eichengreen and Mody (2001) found that the catalytic effect of the IMF is more likely to be observed when dealing with countries with intermediate credit ratings. In countries with good credit ratings the concession of an IMF programme may actually send a negative signal to the market, drawing attention to the existence of problems that had not been foreseen. In countries with low credit ratings the concession of an IMF programme may not be enough to convince the market about the chances of overcoming existing problems. However, the market is aware of the existence of certain moderate problems in countries with intermediate ratings and, in this context, the concession of an IMF programme may reassure investors that such countries are implementing the correct policies in order to overcome these problems. Eichengreen and Mody also found that when programmes are associated with limited structural conditions the catalytic effect tends to be stronger, reflecting the fact that investors are aware of the difficult

28 The first contribution usually identified in the literature is the short paper prepared by the US Treasury in 1977 as background for the Witteveen Facility. Other significant early contributions include that of Bird and Orme (1981) or Killick et al. (1991). These early contributions were not explicitly aimed at testing the catalytic role and, instead, attempted to assess broader aspects related to the involvement of the IMF in developing countries.

29 This is a common problem of the empirical literature on the impact of IMF programmes in its various dimensions.

implementation of certain structural reforms, and therefore consider that in such cases the programmes are more likely to go off track.

Mody and Saravia (2003) further develop the idea that the catalytic effect of the IMF is likely to depend on certain characteristics of the countries concerned, the type of programme and the credibility of the relationship between the IMF and the country. They find that the impact of IMF programmes on capital flows tends to be much stronger in countries in which the situation has not deteriorated too much, and in countries that typically face a marked volatility in their external sector (export growth). With regard to the type of programme, they find that precautionary arrangements and larger programmes tend to catalyse greater volumes of capital inflows because they signal a strong commitment on the part of both the country and the IMF. For the same reason, a continued presence of the IMF in a country helps to foster access to financial markets. At some point in time, however, it appears that investors start to see the duration of the IMF presence in a country as excessive, signalling that problems are very difficult to solve, or that the country is not sufficiently committed to the reforms recommended by the IMF.

Benelli (2003) finds that the size of financial assistance tends to be negatively associated with the deviations between actual and projected capital inflows: the larger the IMF programme, the larger the negative shortfall in net capital inflows.[30] He attributes this to institutional and resources constraints within the IMF: with larger programmes IMF staff are bound to make more optimistic projections of capital inflows in order to close the financing gap of the country concerned. He also finds that the policy adjustment is associated with lower deviations of projected vs. actual capital flows: when the IMF prescribes a stricter macroeconomic conditionality, the programme is more likely to meet the projected capital inflow projections.

Eichengreen, Kletzer and Mody (2004) find that the catalytic effect tends to be stronger in the bond market than in the bank market. They argue that this is due to the fact that banks are more engaged in monitoring activities as part of their day-to-day operations, while the bond market relies more on public information to make assessments. In this context, the role of the IMF as a "delegated monitor" is more likely to manifest itself in the bond market. Moreover, since creditor coordination problems are more acute in the bond market, the presence of the IMF as a potential coordinator is more likely to have an impact on the spreads charged on bond issues. The paper also distinguishes between the IMF's catalytic potential through monitoring/commitment and that through lending. It finds that the IMF presence, rather than its lending, tends to lower bond spreads at an increasing rate in countries that have crossed the threshold of "debt intolerance" and are thus under risk of liquidity crises, but still face a relatively low risk of insolvency (debt-to-GDP ratio between 30 and 55%). As the risk of insolvency increases (debt-to-GDP ratio above 55%), the importance of the IMF's presence falls and, instead, larger lending tends to improve market access. This would imply that the relative importance of the channels through which the IMF may catalyse private flows (monitoring, commitment/conditionality, lending) is somewhat dependent on the level of indebtedness of the debtor country.

Bordo, Mody and Oomes (2004) use more complex dynamic specifications and a longer time horizon to analyse whether the presence of the IMF in a country helps to increase and stabilise capital inflows. After analysing initial conditions they compare the behaviour of capital flows in programme and non-programme countries and conclude that the

30 Benelli avoids the counterfactual problem by using the IMF staff projections contained in the MONA database as the benchmark against which to compare actual capital flows after the concession of a programme.

IMF is more likely to foster higher and more stable inflows in countries that start from an "intermediate" situation. In line with Mody and Saravia (2003), they conclude that IMF programmes do not stop the slide in capital flows in countries with "very bad" initial conditions, while the evidence is mixed in countries starting from a "good" situation.

Díaz Cassou, García Herrero and Molina Sánchez (2004) find a clear catalytic role for precautionary arrangements and for the Poverty Reduction and Growth Facility (PRGF), particularly on FDI. By contrast, no catalytic role is associated with Stand-By Arrangements (SBAs), and a negative result is found for SBAs/ Supplementary Reserve Facility (SRF), implying that most programmes with exceptional access do not seem to foster access to financial markets. When distinguishing between crisis countries and non-crisis countries these results are mitigated: the negative effect of IMF programmes is only confirmed in the non-crisis countries, unless the programme is declared to be precautionary from the outset. In addition, the case studies find that the catalytic effect can be reduced if the size and format of the rescue packages are inappropriate, if there is a lack of transparency or an inappropriate communication strategy with the market, if the programme conditionality lacks credibility or if there is unclear ownership of the programme.

3 ASSESSMENT

The empirical literature fails to find evidence of a broad based catalytic effect associated with IMF programmes, probably in part as a result of certain methodological problems. However, under certain circumstances related to the type of country, the programme and the relationship between the country and the IMF, various studies do find a catalytic effect. For instance, programmes with stricter domestic adjustment or precautionary arrangements seem more likely to catalyse private flows in countries with intermediate credit ratings or where the crisis is not too advanced. FDI and bond flows are also more likely to be catalysed by an IMF programme under certain conditions. This sheds some light on the conditions and circumstances under which a programme might enjoy a greater probability of success, to the extent that this success depends on catalysing private capital inflows.

Table 2 Major empirical contributions on the catalytic role of the IMF

	Objective	Methodology	Dependent variable	Objective variables	Sample and temporal domain	Main findings
Rodrik (1995)	To explore the rationale for the existence of multilateral lending institutions in a world with well-developed international private capital markets, and substantial bilateral aid programmes.	Basic regression.	Net private capital flows	Official flows, distinguishing between multilateral and bilateral transfers, and between concessional and non-concessional lending.	A sample of developing countries in Asia, sub-Saharan Africa and Latin America. 1970-1993	No evidence of a catalytic role of multilateral lending institutions.
Killick (1995)	To analyse the impact of IMF supported programmes in developing countries.	Case studies	Not applicable	Not applicable	17 countries under an IMF programme.	No catalytic effect: only in two countries was the IMF programme associated with larger capital inflows.
Schadler et al. (1995)	To analyse the impact of IMF conditionality on a number of macroeconomic outcomes.	Case studies	Not applicable	Not applicable	36 countries between 1988 and 1992.	Catalytic effect on capital flows found only in a few cases.
Corbo & Hernández (1999)	To examine the role of fundamentals as determinants of capital flows.	Panel data techniques for observations generated by pooling cross section and time series data.	FDI; portfolio flows; long-term private debt flows; sum of all private flows.	Includes the variable "new lending from multilateral sources".	73 countries 1985-1994	Capital flows positively correlated to "new lending from multilateral sources", suggesting the existence of a catalytic role.
Bird et al. (2000)	To assess the catalytic effect of multilateral lending institutions.	Case studies	Not applicable	Not applicable	17 countries 1980s and 1990s	The involvement of multilaterals does not guarantee an inflow of capital from other sources.
Marchesi (2001)	To assess the impact of IMF lending on the subsequent concession of a debt rescheduling.	Bivariate probit model.	Probit for the occurrence of a debt rescheduling.	Distinguishes between SBAs, EFFs, SAFs and ESAFs[1].	93 developing and transition economies 1983-1996	The adoption of an IMF programme facilitates the rescheduling of existing loans.
Eichengreen & Mody (2001)	To examine the effects of IMF programmes and CACs on access to financial markets.	Sample selection, maximum likelihood model.	Gross capital flows (new bond issuance) and spreads.	Distinguishes between SBAs, EFFs and ESAFs.	Realm of international bonds issued by emerging markets. 1991-1999	Catalytic effect when the country concerned has intermediate credit rating and when programmes are attached to limited structural conditionality.
Bird & Rowlands (2002)	To assess the catalytic impact of IMF lending, drawing a distinction between types of capital flow, and types of IMF programme.	Panel data	Net FDI/GDP; official flows/GDP; portfolio flows/GDP; Private source debt/GDP.	Distinguishes between SBAs, EFFs and ESAFs/PRGFs. Takes into consideration the country's past record with IMF programmes.	117 countries 1977-1999	No broad-based evidence of a catalytic effect. SBAs have a positive effect on FDI in middle-income countries and a negative effect on portfolio flows. ESAFs/PRGFs have a negative effect on FDI.
Ghosh et al. (2002)	To look at the experience of eight IMF-supported programmes during the capital account crises of the 1990s.	Case studies	Not applicable	Not applicable	Eight countries 1990s	The catalytic effect on which the programmes were predicated was systematically over-estimated.
Mody & Saravia (2003)	To assess the delegated monitoring function of the IMF.	High frequency panel data	New bond issues (gross capital flows) and spreads on these bonds.	Explores the implications of the design of IMF programmes: size, precautionary character or prolonged use of IMF resources.	3 066 bond issuances 1991-2000	No automatic catalytic effect associated with an IMF programme. Found only under certain conditions relating to the country, the programme and the relationship between the country and the IMF.

Table 2 Major empirical contributions on the catalytic role of the IMF

	Objective	Methodology	Dependent variable	Objective variables	Sample and temporal domain	Main findings
Edwards (2003)	To assess the catalytic effect of IMF programmes on portfolio flows and FDI, distinguishing between the various IMF facilities.	Hazard rate methodology to capture the effect of self-selection.	FDI/GDP and portfolio flow/GDP ratios.	Includes SBAs and EFFs.	126 countries 1979-1995	IMF lending has a negative effect on both portfolio flows and FDI regardless of the type of facility.
Benelli (2003)	To compare actual capital flows and IMF projections after the concession of a programme.	Panel data.	Net private capital flows.	Takes into account the size of and the adjustment induced by the programmes.	105 SBA and 31 EFF programmes.	Actual capital flows fall short of projections in larger programmes and in countries with access to capital markets. Policy adjustments are associated with lower shortfalls of capital flows.
Eichengreen, Kletzer, Mody (2004) mimeo	To contrast the catalytic role of the IMF in the bond market and in bank lending; to consider the level of external solvency; and to distinguish between the IMF's catalytic potential through monitoring/commitment and through lending.	Multinomial logit regression. Transactional data to reduce the severity of reverse causality.	Frequency of transactions and initial risk premium charged on credit.	Loan and bond transactions. Takes into account external debt/GDP ratio.	6 700 loan transactions, 3 500 bond transactions 1991-2002	Stronger catalytic effect in the bond market than in bank lending. Catalytic effect correlated to the country's level of external solvency. When a country faces liquidity risks but not insolvency risk it is the presence of the IMF rather than its lending which catalyses private flows. Instead, when countries face insolvency risk it is the volume of lending, rather than the presence of the IMF which has a catalytic effect.
Bordo, Mody & Oomes (2004)	To study over a longer term horizon whether IMF programmes have helped countries to gain or regain access to international capital markets and, if so, through which channels; and to explore the role of the country's initial conditions.	Statistical comparison of the performance of programme and non-programme countries with similar initial conditions.	Gross bond, equity and loan flows.	Excludes SAF/ESAF/PRGF from the analysis. Distinguishes between SBAs and EFFs.	29 emerging markets 1980-2002	After a dip IMF programmes contribute to an improvement of capital inflows to countries departing from "intermediate" initial conditions.
Díaz Cassou, García Herrero & Molina Sánchez (forthcoming)	To test the existence of a catalytic effect of IMF programmes, taking a broad definition (on the side of crisis prevention and crisis resolution); To compare the econometric analysis with the conclusions of the case studies.	Pool with robust standard errors as benchmark. Case studies.	Total private capital flows, FDI, portfolio or other flows.	Distinguishes between SBA/SRF, EFF, PRGF/SAF/ESAF and precautionary arrangements. Distinguishes between a short-term or announcement effect and a duration effect.	156 countries, eight case studies. 1970-2002	Finds little empirical evidence of a catalytic effect for SBAs and EFFs. A negative effect for SBAs/SRFs. Some empirical evidence of a catalytic effect for precautionary arrangements and PRGF, particularly on FDI flows. The case studies find that various qualitative features of the IMF programmes have a catalytic effect both with regard to crisis resolution and crisis prevention.

1) Extended fund facilities (EFF), structural adjustment facilities (SAF), enhanced structural adjustment facilities (ESAF).

ANNEX 2
EXPERIENCE WITH RESTRUCTURING SOVEREIGN DEBT THROUGH BOND EXCHANGES*

1 BACKGROUND

Since late 1998 there have been a number of examples of sovereign bonds being restructured. Details of seven cases are provided in table 3.[31] Four were pre-default cases – Pakistan (1999), Ukraine (2000), Moldova (2002) and Uruguay (2003) – and three were post default cases – Russia (2000), Ecuador (2000) and Argentina (2005).[32]

Each restructuring involved an exchange offer in which bondholders were invited to exchange their instruments for new longer term bonds. However, there were significant differences in the ways the different agreements were reached both with regard to the legal arrangements and with regard to the dialogue with the creditors.

2 ASSESSMENT

EXCHANGES PROVIDE A MEANS OF RESTRUCTURING DEBT CONTRACTED IN THE FORM OF SOVEREIGN BONDS

– These cases have demonstrated that debt contracted in the form of sovereign bonds is not immune to restructuring by sovereigns facing severe financial crises. In all seven cases it eventually proved possible to secure agreement on restructurings that provided immediate cash-flow relief. [33]

LESSONS FROM THE CASES TO DATE ON HOW TO MANAGE BOND EXCHANGES

– The comprehensive restructuring of outstanding bonds appears to be more likely to produce a debt-service profile consistent with a return to medium-term viability than do efforts to restructure individual instruments in a piecemeal fashion (Ukraine started by restructuring bonds on a piecemeal basis prior to launching a comprehensive exchange). In addition, a comprehensive approach helps to make the debtor's strategy transparent and helps to resolve issues concerning inter-creditor equity, which are difficult to address on a piecemeal basis.

– Efforts by debtors to limit the scope of restructuring to one class of bonds while seeking to protect another class of instruments may pose problems of inter-creditor equity. This may affect different types of international bond (for example, Ecuador tried to limit the restructuring to Brady bonds, but decided that the eventual success of a restructuring depended upon broadening the scope to include Eurobonds) as well as domestic debt (for example, in the cases of both Russia and Ecuador foreign investors were unwilling to show forbearance if that meant allowing investors holding domestic instruments to exit).

– Bond exchanges have been completed appreciably more quickly in pre-default

* Prepared by John Drage.

31 This Annex draws upon two IMF papers: "Involving the Private Sector in the Resolution of Financial Crises – Restructuring International Sovereign Bonds" of 11 January 2001 and "Reviewing the Process for Sovereign Debt Restructuring within the Existing Legal Framework" of 1 August 2003.

32 The dates refer to when the rescheduling exercises were completed. In the case of Argentina a restructuring process was initiated in October 2001 under a two phase approach. Under Phase 1 some USD 50 billion of federal and provincial bonds were rescheduled in early December 2001. Phase 2, covering around USD 82 billion, was eventually launched in January 2004 and the offer was closed on 25 February 2005.

33 In the period 1980 to 1998 there were 56 incidents of sovereign bank debt being restructured, but only four cases (Costa Rica, Guatemala, Panama and Nigeria) of sovereign bonds being restructured. Exchanges of new bonds for defaulted ones were made at par and interest rates on the new instruments were generally higher than on the original bonds, while maturities were longer. No debt reduction was involved. (Sovereign bond reschedulings were more common in the pre-Bretton Woods era of cross-border capital flows.) The small number of sovereign bond issues restructured during the 1980s, plus the perceived difficulty of how to achieve restructuring of sovereign bonds, led some investors to believe that in practice bonds were de facto senior to other forms of sovereign debt to private sector creditors. The bond reschedulings that have occurred since 1998 have ended any perceptions that bonds enjoy an element of seniority.

cases than in post default ones.[34] This may reflect a common incentive on the part of creditors and debtors to avoid default. (An alternative, more subtle, explanation could be that countries choose not to launch bond exchanges pre-default if they anticipate that the process of agreeing a deal will be time-consuming and difficult). However, pre-default exchanges have to date delivered very modest NPV reductions compared to those achieved in post-default restructurings.

– The IMF has a large influence over whether and when a sovereign seeks to restructure its private sector debt by means of an exchange. The extent of the finance that the IMF is prepared to make available to a country will have a major bearing on whether it goes down the exchange route and on the terms that it seeks, including the size of haircut.

– While the seven cases show that bond exchanges provide a means of restructuring sovereign debt incurred in the form of bond issues, a number of questions remain both about the efficiency of bond exchanges as a means of achieving debt restructuring and about the sustainability of the restructurings delivered by exchanges.

EFFICIENCY ISSUES SURROUNDING BOND EXCHANGES AS A MEANS OF ACHIEVING A DEBT RESTRUCTURING

– While the threat of creditor litigation did not disrupt six of the seven reschedulings, there are now a number of cases pending against Argentina that could complicate the satisfactory completion of this restructuring exercise.[35]

– Concerns about holdout problems can encourage legal innovation on the debtor side – such as the exit consents used by Ecuador – which may have adverse ex post effects.

– While bond exchanges provide a technical solution to enable the creditors and debtors to renegotiate, they do not specify the circumstances in which a restructuring may be appropriate or the modalities of how it could be organised.[36]

– Feedback from market participants suggest that many do not believe that the rules of the game are sufficiently well articulated. Given the diversity of approaches followed by the seven countries that have attempted to restructure their debt by means of bond exchanges there is no clear understanding of the process the sovereign will follow, including whether the sovereign will enter into negotiations or not. The varying lengths of time needed to complete the process and the fact the terms of restructurings have varied considerably have further added to this feeling of uncertainty.

34 The length of time from expressing a desire to restructure to completion of the exchange offer in the pre-default restructurings was 4 months for Moldova, 1 month for Pakistan, 2 months for Ukraine, and 1.5 months for Uruguay. For post-default restructurings the time from default to the completion of the exchange was 11 months for Ecuador, 20 months for Russia and 38 months for Argentina. (In the 1930s, when sovereign bond restructurings were generally settled through negotiations between the sovereign debtor and the bondholders, who were represented either by the British Corporation of Foreign Bondholders or the US Foreign Bondholders Protective Council, negotiations often took more than five years, and even 17 years from default to final settlement in the case of Chile.)

35 The Elliott v. Peru case may have increased the temptation for some creditors to take the litigation route. Elliott Associates held out when Peru restructured its external debt into Brady bonds. It was able to exercise considerable leverage by putting Peru in a situation where, if it had refused to pay Elliott in full, payments intended to be made to Brady bondholders could have been seized to service the debt due to Elliott. While the legal basis upon which Elliott litigated its case (particularly its reliance on the pari passu clause) is somewhat controversial, the case illustrated that creditors can sometimes find ways to exercise leverage on a sovereign by putting it in a position where it might be forced to default on payments to other creditors.

36 The same is true of CACs. It is possible that this gap may in the future, to some degree, be filled by sovereigns and their creditors in accordance with the recommendations contained in the "Principles for Stable Capital Flows and Fair Debt Restructuring in Emerging Markets" recently agreed between a number of sovereign issuers and some private sector trade associations (see http://www.iif.com/press/pressrelease.quagga?id=98).

Box 2

ECUADOR'S DEBT RESTRUCTURING – A CASE STUDY OF A POST-DEFAULT EXCHANGE

Ecuador eventually succeeded in securing an agreement that provided for a substantial reduction in the face value of, and medium-term burden of servicing, external debt. This restructuring was the subject of close scrutiny by financial markets and many private creditors expressed concern about the approach adopted by the Ecuadorian authorities, including the absence of the regular provision of information and the limited willingness of the authorities to engage in an open dialogue, let alone to engage in negotiations.

The Ecuador case was also notable for the imaginative use of *exit consents* to resolve difficulties associated with collective action in a restructuring – the first time exit consents have been used in a sovereign context (see below). Ecuador's bonds did not include CACs that could have enabled investors holding a qualified majority of principal to modify the payment terms of their instrument in a way that would be binding on all holders of the issue. As a result, there was a potential difficulty with investors who might decide not to participate in the exchange offer, in the hope of being able to obtain settlement on more favourable terms later.[1] Prior to exiting into the new bonds a majority of bondholders modified the terms of the original bonds (other than those relating to payment) in a way that made the original bonds less attractive to investors who decided not to participate in the exchange. This had the effect of reducing the leverage of the holdout creditors.

Exit consents in bond exchanges

As a technique to encourage full creditor participation in a bond exchange, exit consents (also known as "exit amendments") can be used to restructure international sovereign bonds governed by New York law which do not contain majority restructuring provisions for payment terms. These bonds typically require unanimity to modify payment terms. They do, however, permit a simple majority to modify (with the issuer's consent) other bond provisions – such as waiver of sovereign immunity, submission to jurisdiction, financial covenants and listing. Exit consents are designed to make the bond less attractive through modification of such non-payment provisions, thereby reducing the leverage of the holdout creditors that cannot otherwise be bound because of the absence of a CAC.

In the context of an exchange offer, exit consents are used to allow bondholders, by tendering bonds in the exchange, automatically to vote in favour of the amendments to certain terms of the bonds that they are about to leave. The completion of the exchange offer is predicated on bondholders holding the requisite majority agreeing to the amendment. Even if there were holdouts who refused to participate in the exchange offer and therefore became a majority of the old bond (as everyone else exited), the holdouts would not be able to reverse the amendments without the consent of the sovereign issuer.

The amendment of some of the non-payment provisions could adversely affect the secondary market value of the old bond after the exchange or make it more difficult for remaining holders of the old bonds to pursue legal remedies against the sovereign issuer. For example, if the sovereign immunity waiver were removed from the bond terms through an exit amendment,

holdouts would be stripped of the ability to attach the sovereign issuer's assets (at least in those jurisdictions recognising the amendment) in connection with a lawsuit based on the old bonds. Such an amendment would reduce the attractiveness of the old bonds, thereby removing the incentives for investors not to participate in the exchange offer in the hope of being able to subsequently obtain a more favourable settlement.

For a general discussion of issues concerning exit consents, see Lee C. Buchheit & G. Mitu Gulati, "Exit Consents in Sovereign Bond Exchanges," 48 UCLA Law Review 59 (October 2000).

1 This would be consistent with the classic behaviour of so-called vulture creditors. These creditors tend to buy distressed debt at a steep discount and wait until the "decks have been cleared" through a restructuring before attempting to apply pressure for a favourable settlement, in many cases, through litigation.

– The lack of clarity about the procedures that are likely to be followed may compound the difficulty of achieving a timely agreement. Two issues that often arise are improving the exchange of information between debtors and creditors and, in cases that involve a large and diverse group of creditors, achieving effective coordination between them. (These are areas where the Principles for Stable Capital Flows may be able to help in clarifying "the rules of the game".)

– In addition to the private sector not having a clear understanding of the process by which sovereign debtors will seek to restructure bonds, further uncertainty is created by the lack of a clear understanding about the approaches the IMF might be willing to accept in the context of its policy of lending into arrears.

– Creditors also have concerns that bond exchanges afford sovereign debtors experiencing stress in their external accounts the opportunity to avoid conducting a meaningful dialogue with their creditors. If a country is unwilling to enter into a dialogue, it has the option of presenting its creditors with a "take it or leave it" exchange offer. Creditors are then left with the choice of whether to accept the offer or to face the substantial uncertainties and costs involved in trying to enforce contractual obligations through litigation.

– A further concern for creditors is that, if default precedes the making of an exchange offer, the sovereign may be able to drive down the price of its bonds by delaying entering into negotiations or tabling an exchange offer. The offer that is eventually made may end up forcing substantial losses on investors in the primary market.

– On the debtor's side, fears that a restructuring will impose economic and reputational cost on the country, fears about a sustained loss of access to international capital markets, and concerns about litigation risks, are all factors that may lead to delays in initiating a bond exchange in the hope that, with sufficient time, the country will succeed in resolving the current crisis without having to resort to a restructuring (gambling for redemption).

– It is conceivable that these uncertainties about the process for restructuring sovereign bonds could have an adverse impact on the volume of funds devoted to the emerging markets assets class. US corporate bonds and emerging market sovereign debt are widely seen as competing asset classes (both provide high yield, high risk instruments and

neither class of asset is backed by a lender of last resort). However, the informal out-of-court workouts of distressed corporate debt (conducted in the shadow of bankruptcy law) provide a predictable process for reorganising distressed corporate debt which facilitates the pricing of risk. Some fund managers argue that the lack of an established process for achieving sovereign restructurings makes the pricing of sovereign risk more uncertain than the pricing of corporate risk, which in turn makes emerging market sovereign bonds a less attractive asset class than corporate bonds.

DO BOND EXCHANGES DELIVER MEDIUM-TERM DEBT SUSTAINABILITY?

Once a decision to restructure has been taken, a number of factors affect the terms on which a sovereign is able to achieve a collaborative agreement with its creditors. In particular, it is very difficult to define the appropriate macroeconomic policy response in the midst of a severe crisis. (There is likely to be substantial uncertainty about key factors – including the fiscal costs of resolving financial and corporate sector difficulties – that have a bearing on a debtor's capacity to generate resources for debt-servicing.) It is also very difficult to assess the size of the haircut required to restore medium-term sustainability. In such an environment, sovereign debtors may be unwilling to commit to an early restructuring agreement that may need to be reopened at a later stage. While creditors may judge that their interests are best served by retaining the legal status of their original claims, rather than making concessions in the face of considerable uncertainty about the debtor's payment capacity.

As noted above, pre-default exchanges tend to be completed more quickly than post-default exchanges, but, at the same time, have achieved significantly smaller haircuts. This raises a question as to whether there is a risk that pre-default restructurings may fail to provide durable solutions.[38]

It is also likely that the relative bargaining power of creditors and debtors is changed by an event of default. Post-default a sovereign debtor is in a much stronger position to table a "take-it or leave-it" exchange offer on terms it thinks will achieve medium-term debt sustainability.

The evidence on whether or not pre-default exchanges can achieve sustainable solutions is mixed. The latest IMF reports on Pakistan and Ukraine show the external debt to GDP ratio for these countries on a downward trend.[39] The position in respect of Moldova and Uruguay is less clear. While Moldova's external debt-to-GDP ratio fell from 124% to 107% following the exchange, and has since fallen further to 78%, the IMF is pessimistic about Moldova's ability to achieve external debt sustainability without a further restructuring. In the case of Uruguay's bond exchange the external debt-to-GDP ratio only fell from 101% to 96% at the time of the exchange and the IMF's projections show the ratio staying around this uncomfortably high level. The two countries that have completed post-default exchanges, Ecuador and Russia, achieved substantial reductions in their debt-to-GDP ratios at the time of the exchange and now appear to have external debt-to-GDP ratios that are on a downward trend.[40]

38 The recent Independent Evaluation Office (IEO) report on the role of the IMF in Argentina states (paragraph 245): "Financial engineering in the form of voluntary, market-based debt restructuring is costly and unlikely to improve debt sustainability if it is undertaken under crisis conditions without a credible, comprehensive economic strategy." The report argues that at times of crisis such operations are performed at interest rates significantly higher than in "normal" times and therefore improve short-term cash flows only at the cost of a higher debt service burden.

39 Ukraine's external debt-to-GDP ratio fell sharply, from 33% to 20%, following the bond exchange. While there was no similar downward movement in Pakistan's external debt-to-GDP ratio at the time of the exchange, the ratio has since fallen sharply and appears to be on a downward trend (55% at the time of the exchange to 42% in 2003/04 and a projected 30% by 2008/09).

40 Ecuador's external debt to GDP ratio decreased from 72% to 42% following the exchange and Russia's from 76 to 49%.

Box 3

URUGUAY'S DEBT RESTRUCTURING – A CASE STUDY OF A PRE-DEFAULT EXCHANGE

Background: In the aftermath of a severe currency and banking crisis in the summer of 2002, which was partly the result of contagion from neighbouring Argentina, the authorities were confronted with acute debt problems. Uruguay's total debt had escalated to about 100% of GDP, or roughly USD 11 billion, with significant debt-service obligations falling due in 2003 and 2004. To alleviate the cash-flow pressures and help restore debt sustainability, the authorities embarked on a voluntary debt exchange aimed at lengthening the average maturity on the market private debt. With the assistance of financial and legal advisors and in the context of the IMF-supported programme, the authorities prepared the first draft of a plan in October 2002, but considered it to be insufficient to address the underlying problems. The stabilisation of the banking system over the last months of 2002 delayed the preparation of a revised plan. This was completed in February 2003 after a renewed bank run and further loss of reserves in late January/early February and fears of a pending default. On the basis of the revised plan the authorities proceeded to engage creditors in a dialogue over the debt restructuring. The debt restructuring involved essentially three components: an external component, covering mainly those bonds issued in Europe and the United States (all without CACs, amounting to some USD 3.6 billion), a domestic component, covering bonds issued in the domestic market (some USD 1.6 billion), and a Japanese component, covering Uruguay's Samurai bonds (USD 250 million, containing CACs). Following a period of informal dialogue with creditors, the authorities launched the exchange on 10 April and completed it on 29 May after a brief extension period.

The authorities' strategy: A primary consideration for the authorities was to avoid default. In this context their strategy was aimed at a collaborative process and a voluntary exchange. Since time was limited, the authorities relied on informal contacts with creditors. As near-term debt-service relief was a major consideration, bondholders were invited to swap existing bonds for new longer maturity instruments with broadly the same face value and coupons as the old bonds, implying an NPV reduction. To encourage high participation rates, the authorities established a commitment to complete the offer if participation exceeded 90% (and they also announced that the exchange would not go ahead if participation fell below 80%).

Creditor coordination: Given the time constraint for the completion of the restructuring, inter-creditor coordination was limited. Generally, no serious inter-creditor equity issues were raised, particularly since the debt exchange involved nearly all of Uruguay's market debt, and the design of the final plan took into account investors' concerns. In addition, Uruguay's official bilateral debt was very small, implying that its exclusion from the exchange was not perceived to be a problem by affected creditors.

Dialogue with creditors: The authorities actively sought to involve bondholders in an informal consultation process. The dialogue was guided by the premise that the authorities wished to resolve the debt situation in a voluntary and collaborative manner. The authorities held a first round of meetings (in the United States, Europe, Japan, and Uruguay) to explain their current situation and have creditors' feedback on the debt restructuring offer. On the domestic front, the authorities maintained contacts with major institutional investors. Since domestic market participants had been exposed to the effects of the 2002 financial crisis, they

were generally receptive to the proposed plans. Benefiting from creditors' input in this first round of talks, the authorities formally launched the exchange offer on 10 April 2003. They then proceeded to a second round of meetings with investors, this time to explain the main features of the proposal and its consistency with the envisaged macroeconomic adjustment and financing envelope. The authorities published the Staff Report for the Second Review under the IMF programme, to provide further information to the public on their economic and financial programme. They also stepped up their communication efforts through interviews and advertisements in the local media while remaining in close contact with key investors and analysts.

Special features of the new bonds: The new foreign-law bonds include CACs enabling Uruguay to change the payment terms of each series of bonds with the consent of investors representing 75% of the outstanding principal of the specific series. In addition, the new bonds also include an "aggregation clause" allowing Uruguay to change the payment terms in more than one series of bonds with the consent of investors representing only two thirds of outstanding principal of each affected series, as long as there is also agreement by at least 85% of aggregate bondholders affected by the change

Strategy to deal with holdout investors: The authorities explicitly warned that, if unable to meet all debt-service obligations, they would service the new debt in preference to the old. In addition, they used legal and regulatory incentives to deter non-participation. Holders exchanging the external bonds were asked to approve exit consents, which would reduce the ability of holders of the old bonds to enforce debt-service payments.

Results: After a short extension, the offer finally closed on 29 May, achieving participation rates of nearly 99% on the domestic component, some 90% on the external, and 100% on the Japanese component. Overall, participation rates reached an average of about 93%. Several factors may have contributed to the success of the exchange: (i) realisation by investors that Uruguay's debt and external position were not manageable without the exchange - buttressed by effective IMF conditionality which clearly conditioned further disbursements on satisfactory financing assurances; (ii) a well-designed exchange offer, acceptable to a wide range of investors while meeting financing constraints, and marketed effectively (particularly by domestic retail intermediaries) in a cooperative approach; (iii) relative attractiveness of the new bonds (greater liquidity) compared with the old ones (exit consents, worse regulatory treatment); (iv) the relatively modest size of the haircut (around 20%); (v) the general rally in emerging market debt during the exchange period; and (vi) relatively high prices on the old bonds initially (trading at an average of around 50 cents to the dollar prior to the announcement of the exchange) may have reduced incentives to hold out as the potential upside was limited in the event of recovery of the old bond, either through litigation or because the old bonds were repaid, while the downside was substantial in the event the exchange were to fail and default were to materialise.

ARE BOND EXCHANGES A DURABLE MECHANISM FOR ACHIEVING SOVEREIGN DEBT RESTRUCTURING?

– In five of the seven cases the value (and the number) of bonds rescheduled was comparatively small (the exceptions being Argentina and Russia): the absolute amounts of the face value of the bonds ranged from USD 40 million for Moldova (3% of the outstanding external debt stock) to USD 6.3 billion for Ecuador (39% of the outstanding external debt stock).

– While, participation rates have so far been high in six of the seven cases – Russia, Pakistan and Ukraine were all above 99%, Ecuador 97% (thanks to the use of exit consents) and Uruguay 93%[41] – it may prove more difficult to achieve similar participation rates in future. In all of these cases the holdout creditors eventually got paid in full and this may encourage a higher level of holdouts in future. In the case of Argentina the acceptance rate was 76% and the treatment of the holdout creditors remains unclear.

– It is possible that bond exchanges could be vulnerable to further legal innovation on the creditor side. While it appears that the pari passu issue may have been resolved in a way that does not preclude the use of bond exchanges in the future, it is possible that innovative lawyers may find other legal means to undermine debt exchanges.

– The wider use of CACs could in future mean that, as the stock of bonds without CACs diminishes, sovereign debt reschedulings will increasingly be achieved by amending the terms of existing bonds, rather than exchanging existing bonds for new ones.

41 In the case of Moldova the exchange involved a single bond and the CACs in the bond were used to bind-in the minority holders.

Table 3 Recent debt restructuring cases involving bond exchanges (based on Table 1 of the IMF paper on "Reviewing the Process for Sovereign Debt Restructuring within the Existing Legal Framework" of 1 August 2003)

Country [1]	Initiation and duration of restructuring	Restructured Debt	Terms of restructuring	Debt Relief	Use of CACs & exit consents	Investor base
			Post default cases			
Argentina *Total external debt at end 2001 USD 136.7 billion, of which sovereign external bonds USD 49.5 billion (36% of total external debt).*	Initiated restructuring of domestic and foreign debt in late October 2001 under a two-phase approach. Phase 1 was completed in December 2001. Phase 2 eventually launched in January 2005 (closing date of 25 February 2005)	Under Phase 1, US dollar and Argentine peso bonds were eligible for exchange. The authorities accepted federal bonds with a face value of USD 41 billion and a further USD 9 billion in provincial debt. Under phase 2, the aggregate eligible amount was USD 81.8 billion (comprising USD 79.7 billion of principal and USD 2.1 billion of accrued but unpaid interest as at 31 December 2001). Unpaid interest since December 2001 increases the total amount to around USD 104bn.	Under Phase I all eligible US dollar and Argentine peso bonds were exchanged for new domestic loans with a reduction of interest rates to 70% of the contractual level, a grace period for interest until April 2002, and a three year extension of maturity in the case of bonds maturing up to 2010. Under phase 2 holders can swap into four bonds maturating between 2033 and 2045 including a GDP-linked bond.	Computing haircuts for the phase 1 exchange is complicated by the lack of a secondary market for the new domestic instruments after the exchange. Estimates by Sturzenegger and Zettelmeyer (2004) give upper and lower bound estimates of between 50% and 25%. The phase 2 exchange resulted in a hair cut of around 75%.	None	The debt restructured in phase 1 was held by banks, local pension funds and local residents 0f the debt to be restructured in phase 2 about 50% is estimated to be held by domestic financial institutions (roughly equal numbers of banks and pension companies), 20% by European retail investors, 3% by Japanese retail investors, and the remaining 27% is largely held by US institutional investors.
Ecuador *Total external debt at end 1999 USD 16.3 billion, of which sovereign bonds USD 6.3 billion (39% of total external debt).*	Defaulted on discount Brady bonds in September 1999. Later defaulted on other Brady bonds and Eurobonds. Almost eleven months later, announced a comprehensive exchange offer on 27 July 2000, which was completed on 25 August 2000.	The instruments restructured were collateralised discount Brady bonds, uncollateralised past-due interest (PDI), interest equalisation Brady bonds, and Eurobonds with a total face value of USD 6.5 billion.	Bondholders were given the option to swap the defaulted bonds into a single global USD-denominated step-up 30-year bond, with an option to convert the 30-year bond into a USD-denominated 12-year bond for additional debt reduction. The new bond included a principal reinstatement clause to reduce the risk of future default by Ecuador and amortising features.	The exchange resulted in a reduction in the face value of the bonds by USD 1.8 billion or 27% of the restructured debt. The cash-flow relief provided by the exchange equalled about USD 349 million in the first year (100%) and USD 506 million in the second year (71%), or about USD 1.5 billion in the first five years (42%).	Ecuador was the first sovereign to use exit consents to make the bonds less attractive through modification of non-payment provisions in order to reduce the leverage of holdout creditors.	Widely held by institutional investors in New York and London who had substantial holdings of emerging market debt.

Table 3 Recent debt restructuring cases involving bond exchanges (based on Table 1 of the IMF paper on "Reviewing the Process for Sovereign Debt Restructuring within the Existing Legal Framework" of 1 August 2003)

Country [1)]	Initiation and duration of restructuring	Restructured Debt	Terms of restructuring	Debt Relief	Use of CACs & exit consents	Investor base
			Post default cases			
Russia *Total external debt at end 1998 USD 177.9 billion, of which sovereign bonds USD 16.0 billion (9% of total external debt).*	Defaulted on its restructured loans (PRINs) in December 1998. Six months later in June 1999, Russia defaulted on its interest arrears notes (IANs). An agreement was reached with the Bank Advisory Committee on 11 February 2000 on a comprehensive debt and debt-service reduction operation. The exchange offer was launched on 18 July 2000 and completed on 25 August 2000.	The exchange covered claims estimated at USD 31.8 billion. The claims were composed of about USD 22.2 billion of PRINS, USD 6.8 billion of IANs and USD 2.8 billion of PDI on PRINs and IANs.	The PRINs and IANs were exchanged for new 30-year Eurobonds, which also featured below market interest coupons, a front-loaded interest rate reduction and a 7-year grace period. The PDIs were exchanged for a special 10-year Eurobond at par, with a 6-year grace period. The amount of PDI exchanged was equal to the outstanding amount minus a cash payment of USD 270 million.	The exchange resulted in a reduction in the face value of the bonds by USD 13.4 billion (of which PRINs and IANs accounted for USD 10.6 billion, front-loaded interest reduction in Eurobonds accounted for USD 2.5 billion and PDI accounted for USD 270 million) or 42% of the restructured debt. The cash-flow relief provided by the exchange averaged about USD 1.7 billion per year (for the first 14 years).	Russian Eurobonds were issued under English law, and therefore contained CACs, but these bonds were not restructured.	Of the restructured debt, about 70% was held by domestic banks and the remainder by non-residents.
Moldova *Total external debt at end 2001 USD 1.2 billion, of which sovereign bonds USD 40 million (3% of total external debt).*	Initiated restructuring in June 2002. The final restructuring agreement was signed on 15 October 2002 and became effective on 30 October.	The exchange covered the only Eurobond issued by Moldova. The 5-year Eurobond, with an outstanding balance of USD 39.7 million, was due to mature on 13 June 2002.	Under the exchange, creditors received an immediate cash payment of 10% of the outstanding principal (USD 3.97 million) and a new 7-year amortising bond. The amortisation schedule was back-loaded.	The exchange resulted in a reduction in the face value of the bonds by USD 4 million or 10% of the restructured debt. The cash-flow relief provided by the exchange was USD 33 million in the first year.	The single Eurobond was issued under English law and contained CACs. The majority restructuring provision was used to bind in minority creditors.	Collective action problems were minimised by the fact that a single asset management company held 78% of outstanding bonds.
			Pre-default cases			
Pakistan *Total external debt at end 1998 USD 32.3 billion, of which sovereign bonds USD 685 million (2% of total external debt).*	The exchange offer was launched in November 1999 and was completed on 13 December. It was a requirement that the restructuring should take place under the Paris Club's comparability of treatment clause.	Three Eurobonds with a face value of USD 608 million, had bullet redemptions in the period December 1999 to February 2002, and coupons ranging from 6 to 11.5%. One Eurobond had a put option exercisable on 26 February 2000.	Outstanding Eurobonds were exchanged for a new amortising bond with an overall maturity of six years, including a three year grace period, and a coupon of 10%.	The exchange resulted in an increase in the face value of the bonds by USD 6 million. However, there was a significant cash-flow relief in the first year of the exchange of USD 539 million.	The three Eurobonds were governed by English law and contained CACs. But Pakistan chose not to make use of the CACs because they were concerned that calling a bondholders meeting might facilitate the organisation of bondholders opposed to the restructuring.	Roughly one third of the restructured bonds were held by domestic residents with the rest held by financial institutions and retail investors from the Middle East. US and European investment firms had only small holdings of the debt.

Table 3 Recent debt restructuring cases involving bond exchanges (based on Table 1 of the IMF paper on "Reviewing the Process for Sovereign Debt Restructuring within the Existing Legal Framework" of 1 August 2003)

Country [1]	Initiation and duration of restructuring	Restructured Debt	Terms of restructuring	Debt Relief	Use of CACs & exit consents	Investor base
			Pre-default cases			
Ukraine *Total external debt at end 1999 USD 14.0 billion, of which sovereign bonds USD 2.3 billion (17% of total external debt).*	After piecemeal attempts at earlier restructurings, Ukraine announced a comprehensive exchange offer in February 2000. To address inter-creditor equity concerns, Ukraine decided not to make a principal payment due on one of the bond issues in January 2000 or a coupon payment due on another bond issue in February 2000. As the grace period of both payments expired while the exchange offer was still open, Ukraine was in default during the exchange. The exchange was completed in April 2000.	The exchange involved four Eurobonds with a face value of USD 2.3 billion and USD 1 billion of Gazprom bonds. Coupons on the instruments ranged from 8.5 to 16.75%.	Claims were exchanged for new amortising instruments with maturities of seven years, including a grace period of one year. Investors were offered a choice of a euro-denominated Eurobond bearing a coupon of 10%, and a USD-denominated Eurobond with an 11% coupon.	The exchange resulted in no reduction in the face value of the bonds, but yielded cash-flow savings of USD 835 million in the first year and USD 719 million in the second.	Three bonds which were governed by Luxembourg law contained CACs, but a bond governed by German law did not. The use of a novel hybrid mechanism that combined an exchange offer for all of the instruments with the use of CACs in three of them eliminated potential holdout problems.	The three bonds which contained CACs were held by a relatively limited number of investment banks and hedge funds. The remaining issue was widely held in the retail sector in Europe.
Uruguay *Total external debt at end 2002 USD 10.7 billion, of which sovereign bonds USD 3.4 billion (32% of total external debt).*	The exchange offer was announced on 10 April 2003 and successfully completed on 29 May 2003, after the deadline for offers was extended by one week from 22 May to allow for further participation. During the one-week extension participation rose to 93% and USD 5 billion out of USD 5.4 billion of eligible bonds were exchanged.	The exchange involved nearly all market debt, accounting for about half of total sovereign debt. Eligible securities comprised 46 domestically issued bonds accounting for USD 1.6 billion of principal, 18 international bonds accounting for USD 3.5 billion and one Samurai bond, accounting for USD 250 million.	Investors were offered a choice between two options. Under the "maturity extension" option, each existing bond could be exchanged for a bond with similar coupon and extended maturity (generally 5 years longer), combined in some cases with a 30-year bond. Under the "benchmark" option investors received one of a smaller number of benchmark bonds, which were long-dated but more liquid than under the maturity extension option, also combined in some cases with a 30-year bond.	The exchange resulted in a reduction in the face value of the bonds by USD 49 million. The exchange yielded cash-flow savings of USD 411 million in the first year and USD 192 million in the second year, or about USD 1.6 billion in the first five years. The NPV of future flows on new bonds was about 20% less than the NPV of pre-exchange flows, when discounted at a common factor (16% – the implied yield when the exchange was launched).	Uruguay used CAC provisions in the Samurai bond to bind investors into the restructuring agreement. To further reduce holdout incentives, it also used exit consents in connection with New York law bonds to reduce the old bonds' liquidity and their holders' ability to attach payments made on new bonds. In a new innovation, Uruguay included an aggregation clause among the CACs included in the new bonds. This lowers the threshold of outstanding principal required for consent to modifications of payment terms of individual series, if a larger majority of all affected series approve the change.	More than half of all bonds were held by domestic investors, which were to a large extent the retail sector. The Samurai and euro-denominated bonds had a large retail investor base in Japan and Europe respectively. International dollar-denominated bonds were widely held by institutional investors in the United States.

1) External debt data taken from the World Bank's Global Development Finance.

ANNEX 3
EXPERIENCE WITH ROLLOVER AGREEMENTS*

1 INTRODUCTION

Rollover agreements are a transitional component of PSI in crisis resolution which should provide a bridging to sustainable solutions, e.g. by allowing a temporary breathing space to avoid a bank run. In a number of recent financial crises among EMEs there was an understanding that exceptionally large IMF financing made available to countries undergoing liquidity crises should be accompanied by some kind of "voluntary PSI", frequently in the form of a rollover of bank credit. In rollover agreements creditors and debtors agree to maintain temporarily a hitherto existing level of credit outstanding until, if possible, a sustainable crisis solution is found. Whether this kind of "voluntary PSI" eventually implies significant costs for the creditors, depends on the outcome of the crisis. Thus the rollover itself is clearly a "soft" PSI as interest payments on the renewed credit lines continue at market rates. However, potential costs for creditors lie in the risk of being caught up in a deepening crisis with real losses. In a number of crises, systems for monitoring private external liabilities of domestic financial institutions were introduced to ensure adherence to rollover agreements. One broad measure of success, which, however, could be affected by a number of other factors, might be whether rollover exercises contributed significantly to bridging crisis-driven balance of payments problems. A more direct measure could be the rollover rate. This paper tries to summarise the experience, in particular, with rollover agreements, their monitoring, and the respective roles of the creditor banks' central banks. The review focuses mainly on three countries (South Korea, Brazil and Turkey) and covers a wide range of features linked to a rollover exercise. However, as each crisis had its own idiosyncrasies and complexities, only rough conclusions may be drawn from an assessment and comparison of the country cases.

2 REVIEW OF PAST EXPERIENCE

Rollovers of external liabilities of domestic financial institutions were arranged during the Asian crisis in 1997-98 in South Korea, Thailand and Indonesia, during the Brazilian crisis in 1999 and during the Turkish crisis in 2000/01. The debt to be rolled over was guaranteed by the debtor governments. Monitoring systems were introduced by the debtor countries' authorities in the context of IMF-supported adjustment programmes and with the assistance of IMF staff ("swat teams"), as rollover of short-term foreign debt was seen as critical for the viability of the programmes. While coverage of the monitoring exercises was mainly limited to interbank transaction of domestic banks (incl. their offshore branches and subsidiaries) vis-à-vis foreign banks, foreign banks' holdings of marketable securities and non-bank liabilities were captured, if at all, only roughly due to statistical and legal impediments. The debtor banks' central banks collected daily or weekly flow data and provided information on, in particular, the rollover ratio and net change in exposure. The IMF, after processing the figures, disseminated this information via its Executive Directors to the central banks of the creditor countries. Aggregate figures were supplied on a country-by-country basis to all participating banks' central banks. In addition, data for individual banks registered in particular countries were supplied to the respective central banks of those countries.

Under the coordination of major central banks (e.g. for Brazil: Federal Reserve; for Turkey: Deutsche Bundesbank) regular conference calls among the central banks of the debtor countries' larger creditor countries (the G10; plus Spain and Portugal in the case of Brazil) took place to investigate the plausibility of the data obtained from different sources and to survey actual developments in the light of the rollover agreements, thereby exchanging information collected on the basis of the central banks' contacts with creditor banks. Debtor

* Prepared by Stephan von Stenglin.

country representatives who were more or less involved in the management of the debt monitoring system participated in the calls in the cases of Brazil and Turkey but not in the cases of South Korea and Indonesia.

With the exception of South Korea (where an agreement was reached with the G10 under which the monetary authorities would seek to persuade their creditor banks to stick to the rollover agreement) any moral suasion of creditor banks was at the sole discretion of the responsible central bank. Central banks had contacted their relevant commercial banks and had an exchange of views and information, but only a few of the central banks were ready to exert outright moral suasion. One argument in favour of moral suasion is that exerting it in order to maintain exposures might help preserve the financial positions of creditor banks, without which a run on the external liabilities of a country's domestic banks could lead to a default on creditor banks' claims. Merely contacting creditor banks was seen as a very mild form of moral suasion that might have a positive effect on the rolling over of exposures. An argument against moral suasion is that the onus for securing PSI should rest with the debtor country, and that potential conflicts of interest could arise, since creditors' central banks, in addition to seeking to promote the safety and stability of the international financial system, also have a responsibility to safeguard the health of the financial institutions within their jurisdiction. In addition, encouraging creditor banks to maintain their exposures will not solve a debtor country's key financial problem if that problem is an excessive debt of the public sector and not the external interbank obligations of the banks.

The following brief account of individual rollover cases shows that the rollover exercises and their results differed from country to country.

2.1 SOUTH KOREA

After the approved SBA (combined with the announced financial package) failed to turn around negative market sentiment, major central banks called meetings to convince their respective commercial banks to roll over their maturing interbank lines. The rollover was arranged and announced relatively quickly, and rollover rates rose significantly. After an extension of the rollover arrangement expired, a voluntary debt restructuring (maturity extension between one and three years) was signed. The spreads on the extended bonds were well below those on the JP Morgan EMBI+ index and indicated the revival of market confidence.

Over many years, South Korea was regarded as a country with a healthy economy – with particularly high growth rates, a balanced budget and a sound balance of payments. Confidence was high and spreads in the international financial markets were rather low. The management of the financial crisis was supported by the impression that the difficulties would likely be only temporary. As the rapid withdrawal of external credit to the domestic banks was at the core of the financial crisis in South Korea, it was readily apparent to most participants that stopping the run-off was key to preserving the solvency of these banks, and hence preserving the value of creditor claims. In addition, because there were few or no other factors threatening to deepen the crisis (e.g. hyperinflation or a default by the public sector) even if the financial problems of the domestic banks were addressed, this gave further comfort to creditor country authorities that a coordinated rollover agreement would not put creditor claims at severe risk. In the event, therefore, negotiations with a small number of creditor banks on the rollover of their exposure and the restructuring of the South Korean debt proved to be well-targeted. It was clear to all participants that the value of any individual creditor's claims depended on the willingness of other creditors to roll over their exposure. There was very close cooperation; a series of meetings and road shows were held and creditor banks felt well informed. Due to a restrictive capital account system the bulk of external liabilities had to be

channelled through domestic banks. This facilitated the monitoring which was strengthened by daily telephone conferences. The close cooperation also was supported by moral suasion.

2.2 BRAZIL

A monitoring system was put in place after IMF Executive Directors and the BIS asked to be informed on interbank debt rollovers in advance of the December 1998 SBA approval and provision of bilateral support for the Brazilian adjustment effort. The rollover rates had been particularly low in October 1998 as, in response to news that Brazil had initiated policy discussions with the IMF, private creditors feared they might get caught up in a concerted rollover. Later, however, a form of "voluntary PSI" was secured when commercial bank creditors agreed to maintain their interbank credit lines with Brazilian banks. The names of the participating creditors were published. The agreement was presented both by the participating banks and by the Brazilian authorities as very successful. Capital inflows to Brazil held up better than might have been expected over the six month period in which the agreement was in force, as shown by the fact that the exchange rate and foreign reserves were relatively stable in the face of a rapid reduction in domestic interest rates and a continuing large current account deficit. Total exposure even increased slightly over the period.

The economic fundamentals were not quite as favourable as in South Korea. Weaker growth rates coincided with internal and external deficits. In addition, Brazil's spreads in the international financial markets were significantly higher than those of South Korea, clearly reflecting lower confidence among foreign investors. Nevertheless, Brazil managed to overcome the financial crisis of 1998/99, and it may be said in retrospect that the open and targeted way of managing relations with foreign creditor banks was certainly helpful. In particular, during the monitoring of the rollover agreement, Brazil had direct and close contacts with the banks and disseminated a lot of detailed data to them. It is very likely that the continuous flow of information helped creditors to better understand the debtor's circumstances. Moreover, the system of monitoring implied that individual creditors were informed of the actions and intentions of other creditors. Banks were thus able to understand the reasons for changes in the exposure, and the risk of a concerted draw-down of assets vis-à-vis Brazil may have been reduced. Besides, the close contacts between Brazil and its creditor banks and with the corresponding central banks in the creditor countries also may have helped to exert a mild form of moral suasion. In addition to the efficient monitoring, Brazil's reform programme was convincing and was supported by significant bilateral assistance from major creditor countries.

2.3 TURKEY

During the monitoring period (December 2000 to December 2001) the cumulative outflow was more than USD 8 billion, with creditor banks reducing their exposure to Turkish financial institutions by more than 40%. In the course of the year, weekly net flows, despite fluctuations, still produced a general downward trend. After a major acceleration of outflows in the third quarter, the pace of outflows stabilised and slowed considerably in December. In January and in the first half of February 2002 no further cumulated net outflows took place. All in all, the result of the rollover exercise was regarded as unsatisfactory. Compared with the South Korean and Brazilian cases, Turkey showed differences with respect to the macroeconomic situation (high public debt), official financing (no bilateral assistance apart from the IMF), the procedures to involve the private sector (no moral suasion, mild monitoring, vague commitment of international banks to rollover)[42]and the authorities' commitment to

42 Creditor banks and their respective central banks from G-10 countries complained about the lack of a level playing field as smaller countries' creditor banks were included neither in the rollover agreements nor in the monitoring exercise.

the adjustment and reform process (politically controversial). In addition, the rollover agreement did not publicise the names of participating banks. Finally, not only did markets anticipate the strong official commitment to Turkey due to the country's geo-strategic importance, but official financing commitments were also made prior to each rollover agreement.

2.4 OTHER CASES

In the case of Thailand, agreement to roll over a significant part of maturing short-term debt was achieved before approval of the SBA (the bulk of total short-term debt was owed to branches and subsidiaries of Japanese banks resident in the country). Rollover rates remained high until Japanese creditor banks faced problems at home. The original SBA with Indonesia, approved on 5 November 1997 did not require a certain level of rollover. Only with the deepening of the crisis, did external debt monitoring, initially focused on interbank lines, begin in March 1998. Later the monitoring effort was complicated by including debt owed by corporations (three-fourths of private external debt). Due to available rupiah liquidity and a liberalised foreign exchange market, Indonesian banks largely repaid their foreign interbank debt. Thus, a significant net outflow took place before a late agreement was reached in August 1998 to roll over the rest.

3 ASSESSMENT

The experience with these cases has been mixed. The rollover exercises have been successful inasmuch as in all cases the acute crisis situation has been overcome. In particular, the agreement between South Korea and the foreign creditor banks and the monitoring thereof were widely seen as having been rather successful. Starting from the Asian crisis, however, the effectiveness of rollover and monitoring exercises seems to have decreased over the years. In some cases the monitored liabilities represented only a small share of total external liabilities, and their rollover may not have had any impact on the crisis resolution. Moreover, despite low rollover rates (high net outflow) the crises have still been overcome. In general, the significance of rollover exercises may be waning as international bank loans are increasingly replaced by the issuance of bonds.

3.1 WHICH FACTORS HAVE HAD A POSITIVE IMPACT ON ROLLOVER EXERCISES?

The factors which have had the greatest positive influence on the rollovers are a history of high performance and healthy economic fundamentals (South Korea), and commitment by the authorities to the IMF programme combined with credible adjustment efforts (South Korea, Brazil). These factors, together with bilateral assistance from major creditor countries (Brazil) and an efficient crisis management, including an open and targeted way of managing relations with foreign creditor banks (Korea, Brazil at a later stage), have clearly helped to strengthen the participating creditors' confidence. There was also a positive effect from having a restrictive capital account system which meant that the bulk of external liabilities had to be channelled through domestic banks, thereby facilitating creditor coordination and a more effective monitoring (Korea). Moreover, creditor banks cited the publication of the names of banks participating in the rollover agreement as a reason for their participation as it increased the chance of securing a level playing field (Brazil).

3.2 WHICH FACTORS HAVE HAD A NEGATIVE IMPACT ON ROLLOVER EXERCISES?

One major reason why some rollovers have not succeeded in providing an adequate temporary breathing space to avoid a bank run is that creditors may not have been convinced that the debtor country's financial situation was going to stabilise and recover (Turkey). Another important negative factor was that large net

outflows took place before a rollover or a monitoring was agreed (late agreements in Indonesia, Brazil). Moreover, weak rollovers have been partly "demand-driven". Debtor banks may not have been willing to pay the high spreads required by the market. Credit demand was bound to diminish anyway owing to weak economic conditions in the debtor country (Turkey, Brazil). Creditors' behaviour may also have been affected by bad news from other emerging markets (contagion in South Korea, Indonesia, Brazil, Turkey).

In general, creditor banks had limited incentives to stick to their rollover agreements in cases where

– official financing commitments were made prior to each rollover agreement (Turkey),

– relatively loose conditionality provided the creditors some scope to renege on their commitments, and the rollover agreement did not publicise the names of participating banks (Turkey),

– the provision of information to commercial banks was insufficient to overcome the creditor coordination problem and/or the geographical distribution of creditor banks was highly dispersed (Korea, Indonesia, Brazil, Turkey),

– there was concern among individual creditor banks about unequal treatment (e.g. no inclusion of commercial papers or of smaller countries' creditor banks in the agreements) and about what to do in the event of an insufficient rollover (Brazil, Turkey), and

– there was no uniform view within the G10 on whether and to what extent moral suasion should be exercised (Brazil, Turkey).

3.3 WHAT LESSONS CAN BE DRAWN FROM THE ROLLOVER EXPERIENCE?

First, to avoid large net outflows before a rollover or a monitoring is agreed, timely action is needed. While the main responsibility for organising a timely rollover lies with the debtor country, IMF technical support seems to be indispensable (e.g. capacity to collect, process and communicate high quality data with short lags and to respond promptly to questions and identify emerging problems etc.; the drafting of a standard agreement for use in voluntary arrangements could be considered).

Second, the debtor country's commitment to an accompanying IMF adjustment programme must be clear to boost its credibility in the markets. IMF programmes themselves should be more systematic on monitoring rollovers and on the consistency between their assumptions about private financing and medium-term debt sustainability (financing assurances). In order to strengthen a credible and predictable implementation of PSI by the public sector, IMF programmes might clearly state the possible consequences of a failure to rollover, such as:

– the requirement of additional domestic adjustment or

– a reduction in IMF financing and/or

– a standstill of payments.

Third, depending on their share of overall external liabilities, concentrating on short-term interbank liabilities facilitates an efficient rollover monitoring. It is important to be aware, however, that private sector outflow elsewhere on the capital account tends to be ignored. In general, the importance of rollover exercises may be waning due to increased securitisation.

Fourth, despite some inconsistencies (e.g. relating to different reference dates, creditor and debtor definitions, allocation of syndicated loans), statistical data from different sources turned out to be broadly comparable with each other. To avoid monitoring an agreement based on inappropriate definitions, it might be better to rely on the consolidated exposure figures of

larger lending institutions, rather than on debtor-reported statistics.

Fifth, with regard to the role of creditor banks' central banks and moral suasion, there was little evidence from the monitoring calls that the involvement of any central bank (except in the case of South Korea) had modified in any significant way the behaviour of the creditor banks. Nevertheless, the banks have often expressed their fear of being caught up in a rollover exercise. It may not be sufficient for a successful rollover, however, to have a mandate only to monitor the data. Creditor banks' central banks must be prepared to approach domestic and foreign banks with questions, recognising the sensitivity of the markets. Some degree of moral suasion may be useful. Moreover, in exceptional cases, particularly those involving systemic risk, moral suasion on the part of the official community in support of a rollover agreement between the debtor country and its bank creditors may be warranted. On the other hand, creditor country central banks may prefer to take a more hands-off approach and decide against direct measures whenever public sector pressure on private creditors to accept defaults on their claims is regarded as being incompatible with a market-based system.

Sixth, creditor banks should be provided with strong incentives to stick to their commitments, for instance by concluding official support packages only after a rollover agreement has been finalised, by drawing the agreement as widely as possible (even if the monitoring would become more complicated), by introducing interest caps on debt to be rolled over cautiously and in a market-sensitive way, by establishing a strategy to "guarantee" equal treatment in the event of an insufficient rollover, and by making the participants in the agreement public.

ANNEX 4
STANDSTILLS*

1 DEFINITION, RATIONALE AND ELEMENTS OF A MORE PREDICTABLE FRAMEWORK FOR THE USE OF STANDSTILLS

The resolution of sovereign debt crises may entail, and has occasionally entailed, a temporary interruption of debt service payments by the debtor country. Three different types of arrangement are acknowledged in the legal literature. A *standstill* is an agreement (formal or informal) between a debtor and one or more of its creditors providing for a temporary suspension of debt-service payments by the borrower and of legal actions by creditors. The term *moratorium* is used to describe unilateral actions (formal or informal) by the debtor to suspend its debt-service payments without the agreement of its creditors. Finally, a *stay* is a suspension of creditor rights triggered by a formal declaration of default legally enforced by a third party – an example is the notion of "automatic stay" under Chapter 11 of US bankruptcy law. In this paper, the term "standstill" is used to indicate a temporary suspension of payments by the debtor that is ultimately accepted by creditors. This may happen either explicitly or tacitly, in a voluntary or quasi-coerced fashion, and possibly after the debtor has unilaterally declared a moratorium. In the remainder of the present section we shall examine the rationale of standstills so defined, and discuss the conflict between debtor and creditors that may arise with the suspension of debt-related payments. The discussion is aimed at sketching out a model (or elements of such a model) that may help to deepen our understanding of the varying degrees of debtor-creditor confrontation within a standstill and of the boundary between standstills and moratoria. Actual experience with these arrangements is discussed in the second section.

The economic rationale for a temporary suspension of creditor rights was clarified in the early 1980s by Diamond and Dybvig (1983) and Gorton (1985), with special reference to bank runs and thus in a domestic and non-sovereign setting.[43] In particular, in "opaque" crises where there is great uncertainty, it may be socially efficient to provide for a "circuit-breaker" that allows some "breathing space", i.e. a more pondered assessment of the circumstances and more time to organise an appropriate policy response. Moreover, as shown by Wallace (1988), a suspension policy may be preferable to a lender of last resort policy, unless the authorities have superior information as to the nature and extent of the crisis.

Although standstills may at times be necessary, they nonetheless represent a drastic tool for crisis management, and constitute a breach of contract that should normally be avoided, especially in an international context. The most controversial aspects of standstills in a sovereign setting include (a) their relation to debt restructuring arrangements and (b) their impact on debtor-creditor relations. Standstills do not coincide with restructuring agreements, which involve a change in the payment terms of the original debt instruments, but they may well pave the way for a subsequent restructuring. Furthermore, as noted in IMF (1996), standstill and restructuring agreements "raise the same legal issues with respect to their negotiation, conclusion and enforcement, as well as the risks posed by free-rider creditors. Indeed, even conceding that standstills are aimed at "buying time" in situations where there is uncertainty about whether the crisis is one of illiquidity or one of insolvency, debt restructuring would be, admittedly, unavoidable if the crisis turned out to be one of insolvency. In this latter case, an appropriate framework of rules and practices

* Prepared by Marco Committeri.

43 Suspensions of deposit convertibility in the nineteenth century, "bank holidays" in the 1930s, and special administration procedures in the bank solvency regimes of many countries today, are all examples of standstills in action at the domestic level.

would have to be in place to ensure orderly negotiations to bring the debt down to more sustainable levels. Thus, standstills can be considered as an instrument of crisis management only in association with a backstop solution for debt restructuring (a statutory SDRM, a contractual approach based on CACs, a voluntary code of conduct for debt negotiations).[44]

As to the impact on debtor-creditor relations, this is likely to be determined endogenously on the basis of the general environment in which negotiations for debt restructuring can take place. The relevant features of this environment pertain to the extent to which (a) creditors' collective action problems can be solved, (b) debtor abuse can be avoided, and (c) the IMF can play an effective role in attaining the two former objectives. These features affect the incentives faced by the parties involved, and thus have a bearing on whether payment suspensions would be "a part of a process of cooperative and non-confrontational debt re-negotiation" or of "a more adversarial nature" (Group of Ten, 1996, p. 21).

The severity of collective action problems is closely related to the complexity of a country's external debt,[45] the characteristics of its investor base,[46] and the unavailability of means to achieve effective coordination between such creditors.[47] In principle, CACs could provide a convenient means for the negotiation of a standstill.[48] However, none of the recent bond issues made under the New York jurisdiction included engagement provisions for creditor coordination beyond the majority restructuring and enforcement provisions (Drage and Hovaguimian, 2004). Thus, further progress would be needed in the area of bondholder representation before CACs represent an effective instrument for ensuring orderly standstills.

Discussions in policy circles have also highlighted the fact that the behaviour of debtors will be important for creditors' reactions. In this context the following elements will be relevant to ensure that standstills are not abused by the debtor (*neutrality*). First, the debtor should demonstrate *good faith* during the standstill.[49] Second, the debtor should release all pertinent information to all creditors in a timely fashion (*transparency*). Third, the standstill should be set within a timeframe specifying the date of its removal as well as the interim steps deemed necessary to restore normal conditions (*limited duration*). Fourth, creditors should be treated equally as far as possible (*equal treatment*).[50] Fifth, the standstill on some classes of assets should not be used to facilitate a generalised

44 These considerations are reinforced by the expectation that a more systematic use of debt sustainability analyses (DSAs) in standard IMF surveillance (and their greater integration with balance sheet analyses, BSAs) may help to make crises more "transparent" at their very outset. Although these exercises remain eminently probabilistic in nature, and it will be always difficult to draw a neat line between illiquidity and insolvency, the case for expeditious and orderly restructuring negotiations will be reinforced when downside risks are dominant and reasonable suspicions of insolvency remain.

45 In terms of instruments (bonds, loans, trade credits) and the related payment schedule.

46 I.e. the categories of creditor involved, the number and homogeneity of creditors within each category, and the relative weight of creditors with an interest in maintaining long-term business relations with the borrowing country. Collective action problems have increased in the last decade, as a result of the shift in the composition of sovereign debt towards traded, internationally held, securitised instruments.

47 Another factor is the ability (or willingness) of national authorities in creditor countries to exert moral suasion on the relevant lenders and investors. See Annex 3.

48 As noted in IMF (1996), under the trust deed a bondholders' meeting could be called by the debtor for the purpose of considering resolutions related to, among other things, an amendment of the dates of payment of interest (i.e., a standstill of limited duration, during which good faith negotiations could be conducted).

49 If debt service payment interruptions are perceived as stemming from an unwillingness to pay or from policy mistakes that stand uncorrected, they are likely to be opposed by creditors. The ensuing moratoria may result in more complex and confrontational restructuring negotiations; aggressive litigation could effectively prevent balance of payments adjustment and thus derail the programme predicated under the IMF lending-into-arrears policy (see below).

50 In particular, individual creditors (foreign and domestic) within a class of instruments should be treated the same and holders of different instruments should in general be treated according to the seniority of their contracts. The burden of proof, in the event of a departure from this presumption, should rest with the debtor country. As discussed in the paper by Cassou, de Lis and Weber, "Involvement of Domestic Creditors in Crisis Resolution" (see Annex 5), the case may be made for a different treatment of domestic banks.

capital flight from the country concerned (*capital and exchange controls*).[51] While the first principle had long represented the main pillar of the IMF's policy of "lending into arrears" (see below), it is only recently that good faith, transparency and equal treatment have been acknowledged as an integral part of a voluntary "code of conduct" for the restructuring negotiations of sovereign bonds. It is interesting that in the most recent draft of the code (IIF et al., 2004) the possibility has been contemplated for debtor countries to establish or reinforce, on a temporary and exceptional basis, exchange controls on capital outflows. More importantly, voluntary standstills have been implicitly recognised, in the form of temporary rollovers of short-term maturities on public and private sector obligations, as a means to substantiate creditors' cooperative support for adjustment efforts by the debtor.

At the current juncture, the IMF can only affect the incentives for an orderly standstill in an informal and non-statutory fashion, through statements of opinion and the conditionality attached to its financial arrangements.[52] The IMF policy on lending into arrears (LIA) is likely to act at three distinct levels. First, unlike banks, countries need interim liquidity during a standstill. By providing foreign money to finance a budget or current account deficit throughout the standstill, the IMF acquires, at least in theory, greater leverage on the sovereign debtor. This may strengthen the credibility of the country's adjustment effort, and reinforce creditor perceptions that the country is genuinely unable (not unwilling) to pay. Second, LIA is generally provided on the understanding that the country will be negotiating in good faith with its creditors, which is one of the necessary conditions (although not a sufficient one) for obtaining creditors' forbearance. Third, the LIA policy is naturally linked, as any other IMF lending, to the new exceptional access framework for capital account crises.[53] The possibility of withholding financial assistance from countries whose debt is unsustainable, if perceived as credible by foreign creditors, would strengthen the threat of sovereign default needed to persuade them to approve the standstill. Furthermore, it would create an incentive for debtor countries not to wait until the problems get more acute, and to reach an agreement with their creditors at the outset of the crisis.[54] Overall, given practical difficulties in determining what constitutes "good faith" behaviour in sovereign debt restructuring negotiations, credible limits to IMF financing

51 In this context, capital and exchange controls represent an ancillary instrument to cope with capital flight that may be triggered by a decision to suspend debt service payments (whether taken on a unilateral or consensual basis). They are aimed at reassuring the creditors that all efforts are being made to prevent a depletion of national resources and maintain the country's ability to repay in the future. Capital flight would be more likely in cases in which the authorities had not yet elaborated, or not yet started implementing, a comprehensive adjustment strategy in the early phase of the standstill. Broad-based capital outflows would also be likely to be triggered by a default on domestic sovereign obligations, particularly if the default were seen as compromising domestic banks' ability to manage their liquidity, or as presaging the introduction of comprehensive exchange controls.

52 The idea of a more formalised IMF involvement, through a change in the interpretation of Art. VIII.2(b) of the IMF Articles of Agreement or the amendment of its language, was discussed in IMF (1996) and IMF (2000c) and in the context of the SDRM debate. Art. VIII.2(b) states that "exchange contracts which involve the currency of any member and which are contrary to the exchange control regulations of that member maintained or imposed consistently with this Agreement shall be unenforceable in the territories of any member". If the expression "exchange contracts" were interpreted as encompassing credit agreements, claims arising from sovereign default would be made temporarily unenforceable following a decision by the Board. In any event, the article in question provides only limited protection from creditor litigation. For effective protection an amendment of the IMF Articles of Agreement would be required, which the membership may not be prepared to support.

53 This framework is built on the idea that IMF lending above normal limits should be provided only to countries that (a) are able to comply with the conditionality attached to the programme, (b) have a debt burden which appears sustainable under unfavourable circumstances, and (c) have reasonable prospects of regaining market access.

54 As an alternative means to solve this problem, the IMF has recently started to make it a condition of LIA that the country reach an established target for foreign exchange reserves – which means that some debts vis-à-vis private creditors would not be honoured as scheduled. However, this strategy was largely ineffective (see Eichengreen and Ruehl, 2000).

appear to be the most important element of a system of incentives for orderly standstills – all the more so if coupled with strong conditionality and in the context of non-statutory frameworks.[55] However, while limits on access to IMF resources could affect debtor-creditor expectations and a debtor's decision to pursue a pre-emptive restructuring, it is not obvious that access limits could in themselves have a measurable impact on the restructuring process once standstills are imposed. Besides, the IMF's new access policy has been approved only recently, and it will take time for its rigorous implementation to influence the behaviour of sovereign debtors and private creditors.

2 REVIEW AND ASSESSMENT OF PAST EXPERIENCE

The above considerations remain rather speculative at this stage, since no or very little experience has been gained so far with the elements discussed above (CACs, code of conduct, and the exceptional access policy).

As to the experience of standstills and moratoria, differences have clearly emerged in the experience related to different categories of creditors. Regarding sovereign and commercial bank creditors, numerous "voluntary" standstills have regularly been arranged under two informal restructuring mechanisms (the Paris Club and the London Club, respectively). In both fora, standstills were typically agreed (and have continued to be agreed) on an informal, "de facto" basis, and in the context of an adjustment programme also supported by the IMF.

As regards the Paris Club, it has generally been understood that during the renegotiation period sovereign creditors would not press their claims by instituting a legal process against a sovereign borrower (claims may be pressed in other ways, including by diplomatic means, by reducing or freezing bilateral assistance, or by imposing economic sanctions, and loans may be assigned to a third party, who might then take legal action). In turn, the borrower would undertake to provide comparable treatment to non-Paris Club creditors. In the case of the London Club,[56] unilateral moratoria imposed by the debtor have generally been followed by an acquiescence of the commercial banks in those instances where the debtor could demonstrate a good faith intention to negotiate. This approach has resulted in de facto standstills similar to those of the Paris Club until the completion of the restructuring agreement.[57] The two Clubs have provided reasonably effective fora for standstill negotiations with other sovereign and private bank creditors. Even before their creation (Paris Club 1956 and London Club 1976), the relatively limited number of creditors made it

55 In the paper by Haldane and Krueger (2001), firm limits to official financing were considered an essential prerequisite for establishing a more predictable framework for standstills, and no formal "sanctioning role" was envisaged for the IMF. See also Giannini (2002).

56 London Club procedures initially covered only the rescheduling of medium and long-term bank debt, but have since allowed the restructuring of other forms of debt to commercial banks, as well as the reduction of claims using the techniques established under the Brady initiative.

57 Banks participating in the London Club are represented by a "steering committee" or "advisory committee", typically consisting of no more than 10-20 banks, which deals directly with the sovereign borrower. The negotiations between the sovereign debtor and the steering committee are completed when agreement is reached on a term sheet outlining the proposed restructuring terms. Syndicated loan agreements usually require the unanimous consent of creditor banks; in some cases, banks dissatisfied with the terms being offered assigned their claims to other parties, and actions were brought against the sovereign debtor. London Club reschedulings tend to be longer and more costly than Paris Club negotiations, because of the greater number of participants and the different mechanism for implementing the agreement (while the Paris Club negotiates a framework for rescheduling – the Agreed Minutes – that is then legally implemented through a series of bilateral agreements, the London Club negotiates one comprehensive agreement that is legally binding once formulated). Another difference between the two clubs is that while the Paris Club usually requires the debtor to be in a position of "imminent default" and to have and agreement with the IMF in place before undertaking the negotiations, the London Club is far more likely to engage in "pre-emptive" rescheduling and to restructure debt service payments in the absence of an IMF arrangement (see Biersteker, 1993).

possible to negotiate standstills among the majority of such creditors.

On the other hand, cases of payment suspensions with private-sector bondholders have tended to be rather exceptional, and no fora or procedures similar to those of the Paris and London Clubs have been established. In the 1970s and 1980s, debt service on sovereign bonds was not generally interrupted at times of crisis, nor were such bonds restructured as part of the resolution of crises, mainly reflecting the perception that attempting such restructuring would have been extremely difficult. Only a few bond restructurings were actually accomplished during the debt crises of the 1980s (Costa Rica, Guatemala, Panama and Nigeria; see Fernandez-Ansola and Laursen, 1995). Unlike the experience in the 1930s, no official bondholder committees were involved in the settlements. Instead debtor countries made unilateral bond exchange offers formulated on the basis of informal contacts with the main group of creditors. These cases were all settled relatively quickly (in less than one year) compared to the historical experience of bond defaults in the 1930s.[58] However, the amounts of debt involved were not substantial, since bonded debt was a relatively small share of the total at that time.

Among the crisis episodes observed after Mexico (1994-95), only Ecuador (1999-2000), Russia (1998-2000) and Argentina (2001-present) have taken the form of a unilateral moratorium.[59] In the case of Ecuador (the first ever default on a Brady bond), the investor base was mainly represented by institutional investors in New York and London, specialised in emerging markets. The authorities made only limited attempts to contact the creditors, and resisted the establishment of investor committees. An exchange offer was launched only after the country had been in default for almost a year and following the approval of a new SBA. The IMF was actually involved in the meeting with creditors. In the case of Russia, the moratorium was imposed while the country was still able to honour its debt obligations. Russia refrained from consulting the holders of these debt securities, both at the outset and during most of the moratorium, and the IMF was not consulted either before or during most of the moratorium.[60] Unlike the two latter cases (where litigation was on the whole rather limited), Argentina's moratorium has been plagued by harsh debtor-creditor confrontations. This was made more acute by the new IMF arrangement approved in September 2003. The arrangement entailed a three-year rollover of IMF credit to exceptional levels in the context of a rather weak conditionality, and was perceived by the

58 In the case of Panama, the formulation of an acceptable settlement was complicated by the diverse group of creditors involved. In the cases of Costa Rica and Guatemala, it took from 6 to 12 months to complete a bond restructuring, with 90 to 100% of bondholders accepting the offer. This reflected the fact that these agreements involved the rollover of maturing bonds, more favourable terms on the new instruments, and a partial up-front payment of interest arrears (Costa Rica). The restructuring of bonds defaulted by Nigeria and Panama was also worked out in less than one year with the participation of virtually all bondholders, but only after these bonds had been in default for extended periods.

59 The cases of South Korea, Thailand, Indonesia (1997-1998), Brazil (1999) and Turkey (2000-2001) all involved rollovers of external liabilities of domestic financial institutions (see annex 3).

60 In the case of Russia, the moratorium was accompanied by capital controls.

parties involved as altering their bargaining power.[61]

In the remaining crises (Pakistan 1998-1999, Ukraine 1999-2000 and Uruguay 2002-2003), an exchange offer was launched while the debtor country was still current on its payments, and the offer was accepted before a default could occur (thus in a de facto interruption of debt-related payments). The settlement was implemented and maintained in consultation with creditors, while being supported by the IMF in the context of discussions on an adjustment programme. In the cases of Pakistan and Ukraine, the narrow investor base facilitated informal discussions with creditors and ensured a relatively quick and smooth restructuring of the debt. In the case of Uruguay, where the investor base was more diffuse, exit consents were also used to make the old bonds less attractive through modification of non-payment provisions, and reduce the leverage of holdout creditors; the offer was explicitly supported by the IMF as a precondition to bring the country's debt to more sustainable levels.

Overall, these experiences appear to be rather mixed. On one hand, all cases of standstill have been non-consensual (i.e. imposed by the debtor), have tended to be more confrontational than those in which the exchange offer was launched in a pre-default situation, and have been associated with greater difficulties in the process of debt restructuring. On the other hand, in the case of standstills where a restructuring agreement was reached with the creditors, this allowed a more comprehensive treatment that brought the debt to more sustainable levels. In addition, the agreements that did not entail any suspensions of debt service payments were reached under particularly favourable circumstances, including a relatively narrow investor base, and it is unclear whether they should represent the only model for the resolution of future crises.

With the benefit of hindsight, one may wonder whether, if the new exceptional access framework had already been in place at the time they were enforced, these standstills would have been less confrontational. The September 2003 arrangement for Argentina is particularly interesting in this regard, since it was approved after the adoption of the new access policy and in striking contrast with one of its pillars – the debt sustainability criterion. If it is accepted, on one hand, that the arrangement was mainly

61 The authorities announced the intention to restructure domestic and foreign debt in late October 2001 under a two-phase approach. Debt restructured in *Phase 1* included all U.S. dollar and Argentine peso bonds; bonds denominated in European currencies and yen were not eligible. The first phase was completed in December 2001.64 Phase 2 was to be initiated within a few months of phase 1, but due to deteriorating market conditions a *moratorium on debt not included in Phase 1* was announced in late December 2001. When declaring the moratorium, the authorities specified that discussions with creditors would have soon begun to restructure the debt; the intention was reiterated in March 2002 (without the indication of any precise starting date), and in February 2003, following the approval of a "transitional" IMF arrangement in January. On the latter occasion, two financial and legal advisors were appointed to assist in designing the debt restructuring and in managing relations with private creditors. Meetings with some creditor groups actually begun in March 2003. In July 2003 the Argentine Finance Secretary Nielsen pointed to the need to achieve a *new arrangement* with the IMF "*before* announcing any [debt restructuring] proposal, especially considering that Argentina will have to discuss with this multilateral organisation its medium term macroeconomic projections *from where the Republic's payment capacity could be inferred*". Sovereign debt restructuring guidelines were unveiled for the first time on the periphery of the IMF and World Bank Annual Meetings in Dubai (September 2003), in the aftermath of a new three-year SBA by the IMF. The first two reviews of the programme were approved by the IMF Board in the context of increased confrontation with private creditors. The third review was unilaterally suspended by the authorities, after a second debt restructuring proposal advanced in June 2004 was vocally rejected by some major creditor committees. On 14 January 2005, three years after defaulting, Argentina launched a final debt exchange offer without reaching a previous agreement with its creditors. The offer involved the exchange of defaulted bonds for three new types of securities, including a par, discount, and quasi-par bond. To reinforce the authorities' position that the offer was final, Argentina introduced new legislation to preclude the government from re-opening the debt exchange. The offer closed on 25 February 2005. According to the authorities the participation rate was 76 percent (as against a participation in the range of 93-99 percent in previous sovereign bond restructurings), which implied that about USD 62.3 billion out of USD 81.8 billion in eligible claims was actually tendered in the debt exchange. The observed acceptance rate was principally imputable to Argentine creditors: while the participation of bonds held in Argentina was in the order of 95-98 percent, that of bonds held abroad was in the order of 66-70 percent. The country's remaining arrears currently amount to almost USD 20 billion in principal and about USD 5 billion in past due interest.

granted as an "exception" for a country that had already benefited from IMF credit under the old access rules, it cannot be denied, on the other hand, that the conditionality attached to the arrangement was rather weak, and there was no discernible strategy for reducing the IMF's exposure vis-à-vis the country. These factors were perceived by the parties involved as altering their respective bargaining power, and helped to exacerbate the debtor-creditor confrontation. One may also wonder whether, if such standstills been limited to the principal while interest continued to be paid, this would have helped to avoid a rush of creditors to the courts and facilitated the negotiation of a bond exchange providing sufficient cash-flow relief to ensure future sustainability.

ANNEX 5
INVOLVEMENT OF DOMESTIC CREDITORS IN CRISIS RESOLUTION*

I PRELIMINARY CONSIDERATIONS

Partly as a result of an increase in the share of sovereign debt held by residents in emerging markets, some recent crises have featured an extensive involvement of domestic creditors in the resolution strategy. While Domestic Private Sector Involvement (DPSI) can be viewed as a component of the broader concept of PSI, it has certain features that deserve a special attention. Assessing the involvement of domestic creditors in crisis resolution raises issues of definition, measurement and jurisdiction.

DPSI is an elusive concept. Broadly speaking, PSI refers to efforts undertaken by international private creditors to cover a country's external financing gap in the context of a crisis resolution strategy. By analogy, DPSI would refer to efforts undertaken by the domestic private sector in a similar context. The ambiguity of the term lies in the fact that the mechanisms through which the involvement of residents can contribute to closing a country's external financing gap are not straightforward. However, a closer look suggests a much tighter connection between DPSI and a country's actual or future balance of payments position, and the actual or potential external financing gap. First, capital flight by residents has been an important factor in capital account crises (although evidence in this regard is subject to data uncertainties). On occasions, the authorities have responded with the introduction of controls on capital outflows which can be considered a modality of DPSI to the extent that they affect residents. However, this annex devotes only limited attention to capital controls since they are dealt with in another part of the report. Second, in countries with high informal dollarisation, changes in domestic creditors' confidence have a considerable impact on national and sectoral balance sheet imbalances. Under a fixed exchange rate regime, currency substitution by residents to preserve wealth ("flight to quality") in a context of loss of confidence directly impacts foreign exchange reserves, and thus the capacity of the central bank to sustain the peg. Under a flexible exchange rate regime, unstable market dynamics generated in the domestic sector may result in wide fluctuations in the exchange rate, and, in the context of external debt vulnerabilities, trigger a capital account crisis.

Assessing DPSI in practice is a difficult task. Indeed, authorities faced with an external financial crisis typically resort to a whole set of measures that, either simultaneously or sequentially, entail some elements of bailing-out and bailing-in of domestic creditors. As a consequence, while gauging nominal and real losses incurred by key domestic agents is feasible, it is more difficult to gauge the overall net effect (bailing in or bailing out) of measures taken by national authorities and directed at domestic creditors, not least because the conclusions may vary depending on the time horizon considered.

A salient feature of DPSI is its jurisdictional dimension. First, since domestic creditors are by definition subject to domestic legal and regulatory frameworks designed and implemented by the sovereign, they are directly exposed to regulatory changes aimed at involving them in the resolution of the crisis (e.g. via forced placement of domestic debt, changes in taxes, bank holidays and deposit freezes) as well as to moral suasion by the authorities. Second, claims of domestic creditors on the public sector tend to be subject to domestic law, even if denominated in foreign currency. By contrast, liabilities vis-à-vis non-residents tend to be governed by foreign law. While this distinction does not hold in all crisis episodes[62] and tends to get blurred as the

* Prepared by Javier Díaz Cassou, Santiago Férnandez de Lis and Pierre-François Weber.

62 In Russia, for instance, non-residents held one third of T-Bills issued under domestic law.

opening of the capital account enables residents to hold debt issued under foreign law and foreign investors to buy claims issued domestically, a sovereign typically has a greater ability and a broader array of tools to bail in the domestic private sector than foreign creditors. This leverage becomes evident in debt crises, where the sovereign can resort to selective measures (e.g. domestic debt exchanges and unilateral modifications of domestic debt contracts) in a "gambling for redemption" strategy.

This annex draws mainly on recent experience, and in particular on four cases: Argentina, Ecuador, Russia and Turkey (see Table 4). It first analyses relations between DPSI and domestic adjustment (point 2). It then assesses interactions and sequencing between DPSI and PSI (point 3). It concludes by highlighting some tentative policy implications.

2 DPSI AND THE OVERALL ADJUSTMENT PROCESS

DPSI and domestic adjustment are difficult to disentangle in the context of a crisis resolution strategy, as in both cases the burden is ultimately borne by residents. This section covers the linkages between DPSI and the soundness of the domestic banking system and analyses the ultimate burden sharing of DPSI among the various segments of the domestic private sector.

DPSI AND THE DOMESTIC BANKING SYSTEM

Recent experiences suggest that certain DPSI measures can have a large impact on the solvency of domestic banks, thereby adding to the effects of the financial crisis and posing the risk of precipitating the virtual collapse of the banking system. On the asset side, domestic banks are affected by DPSI to the extent that they hold restructured assets. On the liability side, the implementation of DPSI measures may lead to a sudden loss of confidence, triggering deposit withdrawals and the interruption of interbank credit lines, especially if domestic banks are highly exposed to the sovereign in the context of public debt servicing problems (Argentina, Russia). Among the most directly damaging DPSI measures for domestic banks are the unilateral rescheduling or restructuring of domestic public debt (Argentina, Ecuador, Russia) or the asymmetric conversion to domestic currency of banks' assets and liabilities in the context of highly dollarised economies (asymmetric "pesification" in Argentina).

Under adverse conditions or misguided measures by authorities, the dynamics of balance sheet vulnerabilities can rapidly result in a liquidity shortage. This may force the authorities to introduce other types of DPSI measure affecting the non-banking sector in order to keep the banking system afloat, while in some instances extending liquidity assistance at the same time. Such DPSI measures include deposit freezes (Argentina, Ecuador, Russia) or limits on deposit withdrawals ("corralito" in Argentina). Although the net effect of these kinds of measure on the banking system and financial infrastructure is difficult to assess, they may ultimately result in a collapse of the payment system, in the paralysis of the day-to-day activities of banks and in spillovers to the rest of the economy. Problems in the banking sector often lead to a certain degree of regulatory forbearance by the supervisory authority until the banks' solvency is restored, which facilitates a gradual absorption of the costs of the crisis.

These interactions between DPSI measures and bank fragility impose a trade-off on policy-makers in the setting of a crisis resolution strategy. On one hand, banks play a crucial role in the economy, and preserving a functioning banking system is viewed as key to swift crisis resolution. On the other hand, domestic banks are typically important holders of government securities in emerging markets (a common feature of all four cases examined here) and can therefore be used as a "penultimate resort" to avoid a fully fledged default in cases where

public debt dynamics turn out to be unsustainable.

Admittedly, the reaction of policy-makers to this trade-off is contingent upon the specific circumstances of each country. Still, two scenarios seem to emerge, depending on whether the banking system is weak at the outset of the crisis, or whether problems in the banking system are a result of the crisis. When the banking sector is weak at the outset of the crisis, as was the case in Ecuador, Turkey, and Russia, the objective of keeping the banking system afloat is an immediate priority. In such cases, policy-makers tend to try to preserve the operating capacity of financial institutions. DPSI measures with regard to the financial sector seem futile from the outset of the crisis as the government is already faced with the prospect of injecting funds into the banking system in order to keep it afloat. Conversely, when the banking sector is sound in the early stages of the crisis, as was the case in Argentina, policy makers seem to be more tempted to resort to DPSI, despite the impact these measures might have on the soundness of the domestic banking system.[63] In this sense, the ex ante soundness of domestic banks may constitute an incentive for policy-makers to carry out DPSI. As illustrated by the Argentinean experience, this second scenario entails obvious risks. Imposing DPSI measures on domestic banks may turn a sound banking system into an insolvent one, thus exacerbating the recession, hampering the recovery and eventually leading to a social collapse. Additionally, such DPSI measures spread the cost of the crisis from the banking system to various segments of the domestic sector, a point discussed below.

THE ULTIMATE BURDEN SHARING OF DPSI

Like domestic adjustment, DPSI weighs on various segments of the domestic private sector, i.e. bank shareholders, taxpayers, depositors, households, contributors to the pension system etc. which often overlap. The ultimate burden sharing of DPSI measures mostly depends on political or administrative decisions taken in the context of a crisis resolution strategy.

The measures adopted concerning the domestic banking system have in recent cases proved to be critical in the ultimate allocation of the costs of the crisis. First of all is the decision on how much cost will be borne by the domestic banking sector. This decision has a direct impact on bank shareholders, whether domestic or foreign. However, unless bank shareholders decide (or are forced) to inject fresh funds, their exposure is limited to their capital. If losses exceed this capital, as is often the case in systemic banking crises, other sectors will have to share the cost of such measures – either taxpayers (if ultimately the government is forced to re-capitalise banks) or depositors in the form of liquidity losses (if the government imposes further DPSI measures such as bank holidays or deposit freezes) or in the form of capital losses (if such DPSI measures ultimately lead to a fall in the real value of deposits, or if there are bank closures in the absence of total explicit or implicit deposit insurance mechanisms).

A clear case is that of contributors to pension funds in countries that have adopted a capitalisation scheme (e.g. Argentina). In such cases, pension funds may be explicitly or implicitly forced to invest a significant part of their portfolio in government securities as a result of regulatory limitations on investment abroad, in a context of few investment alternatives other than public debt offered by the domestic financial system. In that case, a unilateral restructuring of domestic debt will impose a loss on pension funds that is not necessarily a result of risky investment practices on the part of fund managers. This cost will ultimately be borne by future and present pensioners to an extent that is a result of two administrative decisions: the ex ante limitations on pension fund investment

63 As explained in the next point, in these cases the involvement of the banking system may also be used to alleviate the impact of the crisis on certain constituencies. Indeed, asymmetric "pesification" was partially aimed at alleviating the impact of the devaluation on households indebted in dollars.

practices, and the ex post DPSI imposed on pension funds.

3 DOMESTIC PSI AND EXTERNAL PSI

As a result of the surge in financial FDI, the nature of the operations of international banks in emerging markets has tended to evolve from cross-border lending to local activity through branches and subsidiaries. In this context, international banks may play the role both of domestic creditors (through the operations of their subsidiaries[64] in the host country) and of external creditors (through cross-border lending) blurring the distinction between DPSI and "external" PSI. This section sheds some light on the interactions between DPSI and PSI.

Looking at DPSI and external PSI separately may be misleading when a substantial part of the domestic banking system is owned by foreign institutions. International creditors with local branches or subsidiaries tend to manage country risk on a consolidated basis. Exiting a host country under stress can prove difficult and costly due to financial, legal and reputational problems, but the parent company usually has other means to reduce its exposure to the country (for instance reducing its holdings of the country's external debt). In this context, unless other conventional PSI measures are effective at stabilising the cross-border exposure of international banks to the country concerned, the imposition of DPSI measures on domestic banks, a significant part of which are partly or fully owned by international institutions, may ultimately prove ineffective in its objective of alleviating balance of payment pressures.

Additionally, the political economy of DPSI can have a bearing on the scope for PSI. Recent experience suggests that in situations of stress the authorities of the host country may be tempted to treat subsidiaries of foreign banks and domestic banks differently in terms of access to central bank liquidity or to other government initiatives to restore the soundness of the banking system. Anecdotal evidence from Argentina and Russia points in this direction. It has been claimed that on occasions the Argentinean authorities were more reluctant to provide foreign-owned domestic banks with liquidity assistance. Russian authorities granted regulatory forbearance to 168 "eligible" entities (by "freezing" prudential requirements), while at the same pressing foreign parent banks to recapitalise their subsidiaries (without succeeding). It is worth noting that this inclination does not seem to be associated with a high foreign penetration in the financial sector – Russia had a low foreign presence at the time of the crisis.[65]

Anecdotal evidence suggests that DPSI measures tend to proliferate in countries that have defaulted on their international obligations during the period immediately preceding external default.[66] These measures tend to be cumulative as the authorities face increasing problems in implementing a domestic adjustment programme, continuing to service their debt and ensuring external sustainability. Argentina is a case in point: the failure to implement the needed fiscal consolidation led, initially, to the introduction of a market-based approach to PSI (the "mega-swap") and to the exertion of moral suasion on domestic creditors (the "patriotic bond") and, subsequently, to an increasingly coercive approach which eventually included an internal default,[67] capital controls and stringent limits on bank deposit withdrawals. Although in Ecuador and Russia an internal default did not precede the external default, there were important pre-default DPSI measures, such as

64 We refer in this point mainly to subsidiaries of international banks, which are subject to host country regulation, supervision and, where relevant, deposit insurance, and are therefore part of the domestic banking system. Given their different legal status and the dependency of their operations on those of the head office, branches are more akin to cross-border lending.

65 This low presence reflects tight regulatory restrictions for foreign banks operating in Russia.

66 As we can see in Table 4, in Turkey, the only country among the four considered in this paper that did not default on its external debt, the extent of DPSI was very limited.

67 In Argentina, the exchange of domestic government bonds for collateralised debt (which occurred prior to the devaluation and default) is widely seen as the date of the internal default.

Russia's failed attempt to exchange domestic debt and Ecuador's deposit freeze. This suggests that policy-makers in countries facing severe debt servicing problems tend to exhaust the options for involving domestic creditors in crisis resolution prior to resorting to a default on their external obligations, notwithstanding the fact that this piecemeal approach often provides very little breathing space. At least two sets of considerations explain this inclination to "gamble for redemption". First, because of the jurisdictional dimension of DPSI, the sovereign can more easily impose debt restructuring measures on domestic creditors. Second, a suspension of foreign debt service payments presents policy-makers with the prospect of protracted negotiations with foreign creditors, litigation risk, and prolonged loss of access to international financial markets. In the short run, the authorities may consider such costs higher than those induced by DPSI measures.

Conversely, after an external default, the authorities tend to be more lenient with domestic creditors than with foreign creditors. For instance, in Ecuador the reduction in NPV of the debt restructured with domestic creditors was 9%, compared with 35% for the debt restructured with foreign creditors. In Argentina pension funds have ultimately been given somewhat special treatment in recognition of the fact that they bore a substantial share of the weight of pre-default PSI.[68] In addition, the authorities have excluded guaranteed loans and Bodens from the restructuring offer on the grounds that the former were the result of a previous debt restructuring while the latter were issued mainly as a banking compensation for the asymmetric pesification and indexation of assets and liabilities. When domestic and external creditors hold similar claims, it may be difficult to treat them in non-comparable ways, not least as this could prevent a high level of participation in the restructuring. There may be a difference in this regard in relation to domestic creditors depending on whether the bonds are held by the financial or the non-financial sector. Non-financial domestic debt-holders tend to be treated as external creditors, whereas the authorities tend to be more cautious with regard to financial debt-holders when they hold a significant portion of public debt. This can be explained by the fact that, in the later stages of a crisis, the domestic banking system solvency is already seriously undermined and the government faces the prospect of restructuring the banking system and probably injecting public funds, making any attempt to impose an additional haircut on bank holdings of public debt pointless. In addition, given the losses imposed on residents prior to the default and the social impact of the crisis, there may at this stage be little room to force further post-default DPSI measures.

4 SOME POLICY IMPLICATIONS

DPSI and PSI are typically not perfect substitutes, mainly because DPSI can have deeper and longer-lasting effects on the economy than PSI. Before making DPSI an explicit pillar of a crisis resolution framework very careful consideration needs to be given to its direct contractionary impact on and confidence implications for the domestic economy, which tend to aggravate the cost of the crisis. In any case, it is difficult to distinguish between domestic PSI and domestic adjustment as both sets of measures tend to overlap and to feed each other.

A critical policy issue is the destabilising effect that DPSI can have on domestic financial institutions. In sovereign debt crises, policy-makers are normally faced with a trade-off between preserving the stability of the banking system and avoiding external sovereign default.

68 The October 2004 deal between the Argentinean government and the pension funds (AFJPs) contemplated a lower haircut for certain bonds with a face value of USD 2,600 million (out of a total debt in default with pension funds of approximately USD 17,000 million).

The interactions between the government and the banking sector in a crisis situation often entail some elements of both a bail-in and a bail-out. This two-directional link complicates the measurement and assessment of DPSI and its comparison with PSI.

The timing of DPSI v. PSI depends to some extent on the situation in the banking sector at the start of the crisis: if the banking sector starts off weak, there is hardly any scope for DPSI as the government has to inject funds into the banking sector from the outset; if the banking sector is relatively sound at first, the government often resorts to DPSI before considering external PSI measures.

DPSI measures (notably public debt placement via regulatory changes or moral suasion) that are taken mainly to avoid a default on international sovereign obligations are usually inefficient (as they do not really restore sustainable debt dynamics) and even counter-productive (as they lead to the collapse of banking and payment systems) and therefore aggravate the cost of the crisis. To a large extent, losses generated by DPSI are ultimately borne by depositors and taxpayers.

Table 4 The experiences of Argentina, Ecuador, Russia and Turkey

Country	Characteristics of the crisis	Before height of the crisis		
		Measures taken by the authorities	Impact on the domestic private sector	Quantitative indicators
Argentina	*Sovereign debt and currency crisis:* exchange rate rigidity and misalignment; lack of fiscal discipline in federal and provincial governments. Social turmoil; low investor confidence (Asian and Russian crises). Banking solvency not an issue until relatively late in the crisis. *Public sector weaknesses:* the combination of a prolonged economic slump and difficulties in mounting a political response to the fiscal problem introduced adverse public debt dynamics. Public debt: 38% of GDP in 1998, 57% of GDP in 2001, 135% of GDP in 2002. Growing share of domestic debt: 28% of total in 1998, 41% of total in 2001. *Fragility in balance sheets:* important credit risk (accumulation of dollar debt in non-tradable sectors); 60% of deposits denominated in USD in 2001. *Capital flight:* USD 10.5 billion in 2001. USD 12.8 billion in 2002.	Tax on financial transactions (0.25 to 0.6%). "Mega-swap" of government bonds. Launch of 3-year USD 1 billion "patriotic bond" to be absorbed by large enterprises and banks. Exchange of domestic government bonds for loans at 4%, collateralised by tax revenues with a grace period. Ultimately this debt was "pesified". Introduction of capital controls and limits on withdrawals from bank deposits: "corralito" and "corralón".	Extensive moral suasion exerted on pension funds (AFJPs) and banks to absorb public debt. Instances of quasi-forced accumulation of public debt. The mega-swap was an attempt to carry out a market based debt restructuring. It failed to restore debt sustainability, and the new bonds were included in the later debt exchange. The exchange of domestic bonds for loans is widely considered to mark the moment of the default on domestic debt. The "corralito" included a weekly limit of USD 250 on withdrawals. The "corralón" was a freeze on term deposits. Riots, social unrest, fall of the government.	Decline in credit to private sector from 20% of GDP to 10% of GDP. Increase in the exposure of domestic private banks/AFJPs to the public sector: - 1999: 15/48 - 2001: 21/65 - 2003: 51/66 Government bonds with a face value of USD 29.5 billion "voluntarily" exchanged in mega-swap, of which USD 22 billion (75%) is domestic debt. About USD 55 billion of domestic public debt "voluntarily" exchanged mainly by banks and pension funds. Ultimately, the exchange implied a reduction of 60% in the NPV of the renegotiated debt.
Ecuador	*Sovereign debt, currency and banking crises:* political uncertainties; social turmoil; low investor confidence; natural disasters. *Financial sector vulnerabilities:* shortcomings in the reform of the financial system (moral hazard, surveillance weakness, lack of crisis resolution instruments etc.) *Public sector vulnerabilities:* unstable dynamics in public debt, 73% of GDP in 1998 to over 130% of GDP in 1999. Debt service burden at 8.3% of GDP in 1998 and 18.1% of GDP in 2001. 88% of public debt external, 12% domestic. *Informal dollarisation:* 35% of quasi money in 1998. Unhedged foreign exchange exposures and currency mismatches. (16% of deposits in 1998) *Formal dollarisation* in Jan. 2000.	Extensive liquidity support to various banks. Introduction of a blanket guarantee on deposits. 1% tax on financial transactions. Attempt at selective default on collateralised Brady bonds. Bank holiday and freeze on bank deposits. Depositors received negotiable claims (CRDs) on their banks. Eventually, and as a result of political pressures, the freeze was lifted prematurely, further aggravating the banking crisis.	Loss of monetary control. Bouts of hyperinflation. Large depositor losses resulting from delays in the materialisation of the deposits guarantee, the devaluation of the Ecuadorian sucre, and inflation. The tax introduced further incentives to transact outside the banking system. Failure of selective default: bond holders voted to accelerate their bonds. CRDs traded at a discount according to perception of each bank's solvency. Collapse of the payment system.	Estimated fiscal cost of the banking crisis: USD 2.7 billion, 24% of GDP. The estimated haircut for sucre depositors was 80%, and 12% for US dollar depositors. 17% fall in deposits following the introduction of the tax. 58% (equivalent to USD 3.7 billion) of deposits affected by the freeze (July 1999). Acceleration in the pace of currency substitution: the share of USD in quasi money jumped to 60% in 1999.

Table 4 The experiences of Argentina, Ecuador, Russia and Turkey

Country	After height of the crisis		
	Measures taken by the authorities	Impact on the domestic private sector	Quantitative indicators
Argentina	Payments suspended on all bilateral and private external debt. End of convertibility and devaluation. Asymmetric pesification and indexation of bank balance sheets. Issuance of "compensatory bonds" for banks. Regulatory forbearance: suspension of minimum capital requirement and obligation to present banks' financial statements. Court ordered injunctions ("amparos judiciales") forcing banks to pay out USD deposits at previous exchange rate. Extensive liquidity support to domestic banking system provided by the central bank (BCRA). Instances of discrimination against foreign entities. Freeze on regulated utility prices. Debt restructuring offer (did not include debt issued after Dec. 2001). Debt swap launched on 14 Jan. 2005 (to 25 Feb. 2005).	Asymmetric pesification shifted burden of devaluation onto banks and taxpayers, resulting in collapse of financial system. Less central bank liquidity for foreign-owned banks in attempt to involve head offices in recapitalisation of Argentinean subsidiaries. Some banks pulled out (Scotiabank, Intesa BCI, Credit Agricole). Freeze on utility prices considered a breach of rule of law. Discrimination against foreign companies. Argentine residents hold about 38% of debt referred to in offer. Over 50% of domestic defaulted debt held by pension funds. This will have impact on future pensions. Banks partially shielded by exclusion of Bodens and guaranteed loans.	Banks' existing dollar denominated assets and liabilities converted at ARS 1 = USD 1 for loans to private sector, and ARS 1.4 = USD 1 for loans to public sector and USD deposits. At market prices banks' net worth fell to negative levels (S&P has estimated it at USD 10 billion). Approx. USD 10.6 billion in compensation bonds. Impact of utility price freeze has yet to be determined. Bond restructuring offer: reduction of 75% in face value of approx. USD 100 billion of defaulted debt including past-due interests. Agreement reached with pension funds in Oct. 2004 (approx. 17% of defaulted debt). Special treatment granted to some of restructured debt.
Ecuador	Renegotiation of domestic public debt. Introduction of a corporate debt restructuring scheme, compulsory for small debtors and voluntary for large borrowers. Suspension of payments on external, commercial and Paris Club debt. Default on internationally traded bonds (Brady and Eurobonds) in September 1999. Unilateral offer to restructure internationally traded bonds. 12 and 30-year maturity for new bonds. 85% take up for the offer to be effective.	Private banks were the largest holders of domestic public debt. Limited impact on pension funds and pensioners (unreformed pension system). The terms of the restructuring were milder for residents, in light of the weaknesses exhibited by the banking sector. The framework for corporate debt restructuring was aimed at mitigating the impact of the crisis on small debtors, and at restoring the sustainability of large borrowers' debt.	Total amount of debt restructured: 56.4% of GDP. Restructured domestic debt: USD 346 million. Reduction of NPV of domestic debt: 9%. About 800 000 small domestic bonds rescheduled (92% of loans in the system). USD 804 million rescheduled by Paris Club (no reduction in NPV). International restructured bonds: USD 6.65 billion (46% of external debt). 98% of bondholders accepted the offer. NPV reduction: 35%.

Table 4 The experiences of Argentina, Ecuador, Russia and Turkey

Country	Characteristics of the crisis	Before height of the crisis		
		Measures taken by the authorities	Impact on the domestic private sector	Quantitative indicators
Russia	*Sovereign debt, currency and banking crises* due to political and external shocks, in context of low investor confidence after Asian crises. *Public sector vulnerabilities:* high reliance on short term financing, weak tax recovery, weak financial discipline; sovereign debt (end 1997): foreign exchange debt 31.4% of GDP, domestic debt 18% of GDP. *Weak market discipline:* high level of arrears and high share of monetary surrogates in domestic transactions; persistent capital flight (USD 22.3 billion in 1997). *Vulnerable domestic banking system* (Dec. 1997). High dollarisation: foreign exchange deposits 26% of total, foreign exchange credit 34% of total. High exposure to government credit risk (31.5% of assets). High off-balance-sheet foreign exchange exposure.	Voluntary domestic debt exchange of Russian Treasury bills (GKOs) for 7 to 20-year Eurobonds (July 1998). Delayed strengthening of market discipline. USD 22.6 billion IMF programme (July 98), but interrupted soon after. After two major banks stopped payments, massive liquidity support to numerous small banks (estimated USD 100 million). Large intervention by Russian central bank (CBR) to support exchange rate (equivalent to ¼ of base money). High arrears accumulated by government (RUB 10 billion, end 1997). Limits imposed on foreign exchange purchases by commercial banks.	Acceleration of demonetisation and dissolution of payment discipline. Low acceptance of debt exchange. Acceleration of capital flight. Hurt by accumulated arrears on public sector expenditures.	USD 4.4 billion of debt exchanged out of USD 40 billion eligible, at very high spreads. Total deposits fall 14 percentage points to 38.7% of broad money at end 1998 (50% in real terms. Non-cash industrial transactions estimated at 55% of total in Aug. 1998. Net open foreign exchange position of commercial banks: USD 10 billion (with off-balance-sheet forward foreign exchange claims of USD 93 billion).
Turkey	*Banking and currency crises* resulting from high balance sheet vulnerabilities in banking sector and slow banking sector reforms in context of the disinflation process and current account widening. *Vulnerable domestic banking sector:* high net foreign exchange open position of commercial banks (USD 2.6 billion, end 2000); poorly regulated; low foreign presence (7% of total assets, 1% of total deposits, end 2000).	Turkish central bank (CBT) temporarily suspended its net domestic assets (NDA) target. Banking sector restructuring was slow prior to first banking crisis (Nov. 2000), as 16 banks had been taken over since Dec. 1999 and recapitalised by the Savings Deposits Insurance Fund (SDIF) (USD 6.1 billion) but measures to streamline these entities were hardly implemented. Full deposit and credit guarantee extended by end 2000. New prudential standard introduced in early 2000.	Liquidity injection and bail out measures failed to stem depositor fears, resident capital flight and currency substitution. Because of tight connection between banks and political sphere, restructuring was disappointing.	Currency substitution: foreign exchange denominated deposits rose 12% points to 55.6% of total by end 2001. Capital flight accelerated (USD 2 billion, end 2000).

Table 4 The experiences of Argentina, Ecuador, Russia and Turkey

Country	After height of the crisis		
	Measures taken by the authorities	Impact on the domestic private sector	Quantitative indicators
Russia	Floatation of rouble. Default on rouble sovereign debt maturing before 1999 (excluding claims held by households). Tight capital and exchange controls (98Q3-99Q4). Three month moratorium on private foreign debt (Aug. 1998). Deposits. Transfer of some individuals' deposits to Sberbank; guarantee of deposits held in Sberbank; freeze (98Q4-99Q1). CBR sought (and failed) to obtain from foreign banks the recapitalisation of their subsidiaries.	Domestic banks bore most part of the shock as they held 72% of defaulted debt, credit portfolio quality collapsed against weak creditor rights, large unhedged foreign exchange liabilities, foreign exchange loans to domestic corporates. Most top-50 banks became insolvent. Depositors bear real losses from deposit freeze, exchange controls and inflation. Regulatory forbearance: soundness indicators were "frozen" for 168 "eligible" banks; very few licenses were revoked.	Defaulted debt (excluding Paris Club): USD 48.6 billion, 10.8% of GDP. Haircut: 37.5% reduction in principal of PRINS and 33% of IANS. Net capital flight: USD 26.3 billion in 1998. Slightly abated in 1999 (decrease of USD 0.9 billion). Banking sector losses: ROA1 = -3.5% (end 1998), -0.3% (end 1999). ROE2 = -28.6% (end 1998), -4.0% (end 1999). Continued currency substitution (end 1998): foreign exchange deposits 41.9% of total, foreign exchange credits 55% of total. Bad loans jumped to 30% of total (end 1998) against 12% in 1997.
Turkey	CBT did not suspend its NDA target despite sharp liquidity shortage of banks. Treasury extended (i) foreign exchange bonds to help close net foreign exchange open position and (ii) floating rate notes to cover "duty losses". Banks benefited from generous tax deductions as an incentive for voluntary merger and consolidation. As debt rose fast, authorities favoured active debt management (voluntary debt swaps in June 2001) and fiscal credibility measures to secure voluntary involvement of private sector. To support strengthening of banks' capital base, supervisory authority suspended dividend distributions.	Banking sector was partly insulated from large structural fiscal adjustment needed to cope with current account deficit and rising public debt. Foreign exchange risk was actually transferred to government. Commercial banks and private residents reduced their holdings of central government debt during 2001 (as percentage of total debt). However, deep restructuring in domestic banking sector took place. Exposure to public risk rose significantly as a percentage of assets.	Bank consolidation: recapitalisation public bonds: 35% of GNP in 2001; net open foreign exchange position of banks (end 2001) closed: USD 0.1 billion. Global cost of bank restructuring: 28% of GNP. Public debt: central government foreign exchange indexed debt (end 2001): 50.7% of total debt, up 13 percentage points compared to end 2000; net public debt (end 2001): external up 19.7 percentage points to 38% of GNP, domestic up 15.1 percentage points to 54.2% of GNP. Government debt holding (as percentage of total debt): central bank up 24 percentage points to 28.2%, private residents down 13 percentage points to 3.3%, commercial banks down 14 percentage points to 53%.

1) Return on assets.
2) Return on equity.

REFERENCES

Benelli, R. (2003), "Do IMF Programs Boost Private Capital Inflows? The Role of Program Size and Policy Adjustment", IMF Working Paper 03/213, International Monetary Fund.

Biersteker, T.J. (1993), *Dealing with Debt. International Financial Negotiations and Adjustment Bargaining*, Westview Press.

Bird, G. and T. Orme (1981), "An Analysis of Drawings on the International Monetary Fund by Developing Countries", *World Development*, Vol. 9, No 6, pp. 563-568.

Bird, G. and D. Rowlands (2002), "Do IMF Programmes Have a Catalytic Effect on Other International Capital Flows?" *Oxford Development Studies*, Vol. 30, No 3, pp. 229-49.

Bird, G., A. Mori and D. Rowlands (2000), "Do the Multilaterals Catalyze Other Capital Flows? A Case Study Analysis", *Third World Quarterly*, Vol. 21, No 3, pp. 483-503.

Bordo, M., A. Mody and N. Oomes (2004), "Keeping Capital Flowing: The Role of the IMF", IMF Working Paper 04/197.

Corbo, V. and L. Hernández (1999), "Private Capital Inflows and the Role of Fundamentals", in F. Ferraín (ed.), *Capital Flows, Capital Controls, and Currency Crises: Latin America in the 1990's*, Michigan University Press.

Dell'Ariccia, G., Schnabel, I. and Zettelmeyer, J. (2002), "Moral Hazard and International Crisis Lending: A Test", *IMF Working Paper*, n. 02/181.

Diamond, D. and P. Dybvig (1983), "Bank Runs, Deposit Insurance, and Liquidity", *Journal of Political Economy*, Vol. 91, No 3, June, pp. 401-419.

Díaz Cassou, J., A. García Herrero and L. Molina Sánchez (2005), *"The IMF Catalytic Role in Crisis Prevention and Crisis Resolution"*, Banco de España, forthcoming.

Drage, J. and C. Hovaguimian (2004), "Collective Action Clauses (CACs): an analysis of provisions included in recent sovereign bond issues", Bank of England Financial Stability Papers, available at http://www.bankofengland.co.uk/fsr/fsr17art19.pdf.

Dreher, A. (2004), "Does the IMF Cause Moral Hazard? A Critical review of the Evidence", unpublished manuscript.

Edwards, M. S. (2003), "Signalling Credibility? The IMF and Catalytic Finance", Texas Tech University, mimeo.

Eichengreen, B. and A. Mody (2001), "Bail-Ins, Bailouts and Borrowing Costs", *Journal of Econometrics*, Vol. 36, pp. 205-230.

Eichengreen, B. and R. Portes (1995), "Crisis? What Crisis? Orderly Workouts for Sovereign Debtors", Centre for Economic Policy Research, London.

Eichengreen, B. and C. Ruehl (2000), "The bail-in problem: systematic goals, ad hoc means", CEPR Discussion Paper No 2427, April.

Eichengreen, B., K. Kletzer and A. Mody (2004), "Monitoring International Borrowers: the IMF's Role in Bank and Bond Lending", mimeo.

Evrensel, A. Y. and Kutan, A. M. (2004), "Testing Creditor Moral Hazard in Sovereign Bond Markets: A Unified Theoretical Approach and Empirical Evidence", *William Davidson Institute Working Paper*, n. 665, University of Michigan Business School.

Fernandez-Ansola, J.J. and T. Laursen (1995), "Historical Experience with Bond Financing to Developing Countries", IMF Working Paper WP/95/27, February.

Ghosh, A., T. Lane, M. Schultze-Gattas, A. Bulir, J. Haussmann and A. Mourmouras (2002), "IMF Supported Programmes in Capital Account Crises", Occasional Paper No 210, International Monetary Fund.

Giannini, C. (2002), "Pitfalls in international crisis lending", in C. Goodhart and G. Illing (eds.), *Financial Crises, Contagion, and the Lender of Last Resort: A Reader*, Oxford University Press, Oxford, pp. 511-545.

Gorton, G.B. (1985), "Bank Suspension of Convertibility", *Journal of Monetary Economics*, Vol. 15, No 2, March, pp. 177-193.

Group of Ten (1996), "The Resolution of Sovereign Liquidity Crises", Report to G10 Ministers and Governors, May.

Haldane, A. and M. Kruger (2001), "The Resolution of International Financial Crises: Private Finance and Public Funds", Bank of Canada Working Paper 2001-20, November, and *Bank of England Financial Stability Review*, No 11, December, pp. 193-202.

Haldane, A. G. and Scheibe, J. (2004), "IMF Lending and Creditor Moral Hazard", *Bank of England Working Paper*, n. 216.

IIF et al. (2004), "Principles for Stable Capital Flows and Fair Debt Restructuring in Emerging Markets", 22 November.

IMF (1996), "Note on 'Legal Aspects of Standstills and Moratoria on Sovereign Debt Payments, and Their Effect on Actions by Creditors'," EBS/96/26, February 22, 1996 (unpublished; Executive Board Internal Report, originally prepared at the request of the G-10 Working Party on the Resolution of Sovereign Liquidity Crises; Washington: International Monetary Fund).

IMF (1999b), "Involving the Private Sector in Forestalling and Resolving Financial Crises", 17 March.

IMF (2000a), "Communiqué of the International Monetary and Financial Committee of the Board of Governors of the International Monetary Fund", 24 September.

IMF (2000c), "Involving the Private Sector in the Resolution of Financial Crises. Standstills : Preliminary Considerations", 5 September.

IMF (2005), "Progress Report to the International Monetary and Financial Committee on Crisis Resolution", 12 April.

Kamin, S. B. (2002), "Identifying the Role of Moral Hazard in International Financial Markets", Board of Governors of the Federal reserve System, *International Finance Discussion Papers*, n. 736.

Killick, T. (1995), *IMF Programmes in Developing Countries – Design and Impact*, Routledge, London.

Killick, T., M. Moazzam and M. Manuel (1991), "What can we know about the Effects of IMF Programmes?" Overseas Development Institute Working Paper, Regent's College, London.

Lane, T. And Phillips, S. (2000), "Does IMF Financing result in Moral Hazard?", *IMF Working Paper*, n. 00/168.

Marchesi, S. (2001), "Adoption of an IMF Programme and Debt Rescheduling. An Empirical Analysis", Development Studies Working Papers No 152, University of Oxford/Queen Elizabeth House, Oxford.

Mody, A. and D. Saravia (2003), "Catalyzing Private Capital Flows: Do IMF-Supported Programs Work as Commitment Devices?", IMF Working Paper WP/03/100.

Rodrik, D. (1995), "Why is There Multilateral Lending?", NBER Working Paper No 5160.

Schadler, S., A. Benett, M. Carkovic, L. Dicks-Mireaux, M. Mecagni, J.H.J. Morsink and M.A. Savastano (1995), "IMF Conditionality: Experience Under Stand-By and Extended Arrangements", Occasional Paper No 128, International Monetary Fund.

Spadafora, F. (2002), "Financial Crises, Moral Hazard and the "Speciality" of the International Interbank Market: Further Evidence from the Pricing of Syndicated Loans to Emerging Markets", *Banca d'Italia Working Paper*, n. 438.

Sturzenegger, F. and J. Zettelmeyer (2004), "Haircuts", mimeo.

Wallace, N. (1988), "Another Attempt to Explain an Illiquid Banking System", *Federal Reserve Bank of Minneapolis Quarterly Review*, Fall.

Zhang, X. (1999), "Testing of Moral Hazard in Emerging Market Lending", *Institute of International Finance Paper*, n. 99-1.

EUROPEAN CENTRAL BANK
OCCASIONAL PAPER SERIES

1 "The impact of the euro on money and bond markets" by J. Santillán, M. Bayle and C. Thygesen, July 2000.

2 "The effective exchange rates of the euro" by L. Buldorini, S. Makrydakis and C. Thimann, February 2002.

3 "Estimating the trend of M3 income velocity underlying the reference value for monetary growth" by C. Brand, D. Gerdesmeier and B. Roffia, May 2002.

4 "Labour force developments in the euro area since the 1980s" by V. Genre and R. Gómez-Salvador, July 2002.

5 "The evolution of clearing and central counterparty services for exchange-traded derivatives in the United States and Europe: a comparison" by D. Russo, T. L. Hart and A. Schönenberger, September 2002.

6 "Banking integration in the euro area" by I. Cabral, F. Dierick and J. Vesala, December 2002.

7 "Economic relations with regions neighbouring the euro area in the 'Euro Time Zone'" by F. Mazzaferro, A. Mehl, M. Sturm, C. Thimann and A. Winkler, December 2002.

8 "An introduction to the ECB's survey of professional forecasters" by J. A. Garcia, September 2003.

9 "Fiscal adjustment in 1991-2002: stylised facts and policy implications" by M. G. Briotti, February 2004.

10 "The acceding countries' strategies towards ERM II and the adoption of the euro: an analytical review" by a staff team led by P. Backé and C. Thimann and including O. Arratibel, O. Calvo-Gonzalez, A. Mehl and C. Nerlich, February 2004.

11 "Official dollarisation/euroisation: motives, features and policy implications of current cases" by A. Winkler, F. Mazzaferro, C. Nerlich and C. Thimann, February 2004.

12 "Understanding the impact of the external dimension on the euro area: trade, capital flows and other international macroeconomic linkages" by R. Anderton, F. di Mauro and F. Moneta, March 2004.

13 "Fair value accounting and financial stability" by a staff team led by A. Enria and including L. Cappiello, F. Dierick, S. Grittini, A. Maddaloni, P. Molitor, F. Pires and P. Poloni, April 2004.

14 "Measuring Financial Integration in the Euro Area" by L. Baele, A. Ferrando, P. Hördahl, E. Krylova, C. Monnet, April 2004.

15 "Quality adjustment of European price statistics and the role for hedonics" by H. Ahnert and G. Kenny, May 2004.

16 "Market dynamics associated with credit ratings: a literature review" by F. Gonzalez, F. Haas, R. Johannes, M. Persson, L. Toledo, R. Violi, M. Wieland and C. Zins, June 2004.

17 "Corporate 'Excesses' and financial market dynamics" by A. Maddaloni and D. Pain, July 2004.

18 "The international role of the euro: evidence from bonds issued by non-euro area residents" by A. Geis, A. Mehl and S. Wredenborg, July 2004.

19 "Sectoral specialisation in the EU a macroeconomic perspective" by MPC task force of the ESCB, July 2004.

20 "The supervision of mixed financial services groups in Europe" by F. Dierick, August 2004.

21 "Governance of securities clearing and settlement systems" by D. Russo, T. Hart, M. C. Malaguti and C. Papathanassiou, October 2004.

22 "Assessing potential output growth in the euro area: a growth accounting perspective" by A. Musso and T. Westermann, January 2005.

23 "The bank lending survey for the euro area" by J. Berg, A. van Rixtel, A. Ferrando, G. de Bondt and S. Scopel, February 2005.

24 "Wage diversity in the euro area: an overview of labour cost differentials across industries" by V. Genre, D. Momferatou and G. Mourre, February 2005.

25 "Government debt management in the euro area: recent theoretical developments and changes in practices" by G. Wolswijk and J. de Haan, March 2005.

26 "The analysis of banking sector health using macro-prudential indicators" by L. Mörttinen, P. Poloni, P. Sandars and J. Vesala, March 2005.

27 "The EU budget – how much scope for institutional reform?" by H. Enderlein, J. Lindner, O. Calvo-Gonzalez, R. Ritter, April 2005.

28 "Reforms in selected EU network industries" by R. Martin, M. Roma, I. Vansteenkiste, April 2005.

29 "Wealth and asset price effects on economic activity", by F. Altissimo, E. Georgiou, T. Sastre, M. T. Valderrama, G. Sterne, M. Stocker, M. Weth, K. Whelan, A. Willman, June 2005.

30 "Competitiveness and the export performance of the euro area", by a Task Force of the Monetary Policy Committee of the European System of Central Banks, June 2005.

31 "Regional monetary integration in the member states of the Gulf Cooperation Council (GCC)" by M. Sturm and N. Siegfried, June 2005.

32 "Managing Financial Crises in Emerging Market Economies: Experience with the Involvement of Private Sector Creditors", by an International Relations Committee task force, July 2005